

MITOCW | strategic_communication_STEM

Any time you begin a communication, whether face-to-face, in writing, or over the phone, it's important to think about why you've opened that line of communication, what the goal of your interaction is, and how you're going to deliver your message.

In this video, we'll watch 3 segments of a presentation created by MIT students. You will analyze the strategy used to develop the message, and hear how and why the presenters chose this strategy.

This video is part of the Communication video series. Successful professional communication begins with the ability to analyze situational variables and make strategic decisions.

Hi, my name is Joanne Yates, and I'm a Sloan Distinguished Professor of Management and Deputy Dean in the Sloan School of Management at MIT.

After watching this video, you should be able to use a strategic approach in order to communicate effectively. This means that you will be able to Analyze your audience, context and purpose Examine and build your own credibility with the audience Decide on content, structure, channel, and style, and Evaluate your own and other's messages for sound arguments and effective strategy.

As we watch the student presentation, think about the following elements: Purpose: what is the objective of the presentation? Credibility: Do the speakers have credibility with the audience when they start the presentation? If not, how do they establish it? For example, do they build an argument that shows expertise? Content: Does the material support the objective?

Is the argument sound? Does the content answer the audience's questions?

Structure: Does the organization of the presentation support what the speakers are trying to achieve?

Channel: What methods (demos, schematics, animations, text, narration) were used to convey the points, and were they effective? Style: Did the style fit the context? For example, were the speakers projecting a formal or informal style? Were they poised and confident?

This presentation was the last requirement in our class for engineering processes.

The presentation was made in a large auditorium, to around a hundred or two hundred audience members. Ranging from Industry members to students, to mentors, to late men who didn't know much about engineering processes.

For anyone that uses a walker many everyday occurrences loom as obstacles.

Walkers can't be used on steps in the home or in the community.

They don't fit in the narrow aisles of trains, planes, buses, performance venues, or sports stadiums.

There's no room for them in the tight corners of restaurants, or most Boston Area apartments.

On behalf of Green Team we'd like to introduce to you a solution.

Our product, Walker Prime. A walker that can be transformed into a cane.

Through conversations with over 20 users and their representatives.

We've established that the market for this product is community ambulators.

These are older adults who independently drive, but need the added stability of a walker.

For instance one user we spoke to recalled recently going to a fancy restaurant and chose to bring his cane rather than his walker fearing that there wouldn't be space in the restaurant.

Unfortunately the restaurant had a very large parking garage and in traveling from his car to the restaurant he became fatigued and really wished he had his walker.

To take a look at how Walker Prime could have improved his situation we're going to do a demonstration with Ran Dedia. If she was going to meet a friend for lunch in a restaurant downtown and parked a block away. They could use Walker Prime in walker mode to get to the base of the stairs leading up to the restaurant. She could then by pressing on the lower locks convert Walker Prime into a cane mode. And using the cane in one hand and the railing in the other she could ascend the stairs.

The wheels are lifted above the skids, so there's no chance of them touching the ground.

She can then after she's finished with lunch descend the stairs in the same manner.

And to get back to her car she can change it back to walker mode to walk the extra block.

Unfortunately sometimes there's a narrow foot path leading to a parking area too narrow for a walker. Again with Walker Prime this is no longer an obstacle.

To see how this played out with an actual user we visited a rehabilitation center yesterday and worked with a gentleman who is recovering from hip replacement surgery.

He too.

He too was able to walk using Walker Prime in Walker mode.

And as he approached the bottom of the stairs he was able to compress it transforming into a cane.

And then ascend the stairs using the cane in one hand and for stability the railing in the other.

Later he was able to descend the steps in the same fashion.

This is what Walker Prime does. If stairs are a thing of your past Walker Prime is not going to change that.

But if what's keeping you from the stairs is your walker, that's a job for Walker Prime.

What was the purpose of the presentation?

The purpose of our presentation was to explain why our product was important Why would anyone need this kind of transformable walker?

To do that we showed different use cases. For example we tried to appeal the audience by talking about narrow spaces in Boston which people could relate to.

We also showed another use case of a user having to walk for a long while in a parking lot.

This helped us show the audience that our product is important.

Would the audience have found the presenters credible?

What did they do to convince the audience that their arguments were sound?

Their team's next presentation.

And we actually had a bad one for our fifth presentation because the aesthetics of our product.

And because we were pretty late in putting it all together.

So, and our mentors and the staff of 009 have seen this.

So we had to re-establish credibility with our final design with our mentors and staff and we tried to convey that in our presentation.

We tested walker prime with two users in a rehabilitation facility and we had a video with one of the users showing how he was able to use our product pretty easily climbing up the stairs, climbing down the stairs and transitioning it from a walker to a cane.

This was important because one, it showed that in reality this is a viable product it reaffirmed how functional the product was and it gave us enough credibility with the audience to show that this would actually be a good product and actually I think a lot of our reviews that came in after the presentation did say that we could possibly make this a real product.

Let's continue watching the video.

For Walker Prime we wanted to focus on three things.

Stability, simplicity, and ergonomic.

This is an interesting design challenge because for each of the modes there were different requirements For Walker mode we used similar dimensions to those of other walkers on the market.

We had to be able to make sure that you could adjust the height and still have a stable walker.

The legs extend from hip height and are angled outward to create lateral stability.

In Cane mode we wanted to make sure that you maintain the same handle height in both modes which also motivated many of our other design decisions.

We also looked at other canes on the market and consulted physical therapist to determine what an appropriate cane footprint would be so that it would also fit on a stair.

Let's take a look at the Walker at the intuitive transition from walker to cane mode.

We accomplished this by linking the motion in both directions so that it was simple to use so that all the user has to do is grab the two locks on either side, disengage them and bring your hands together into cane mode.

Let's take a look at the handles. There are 2 handles in walker mode that become 1 in cane mode.

The wave allows the handles to come together nicely and also provides an ergonomic contour for your fingers.

Just below the handles are the safety locks.

There are two different locks but they are both passive for simplicity.

In order to use active these locks first the user must disengage the upper lock and pull the handles apart.

Then the locks on either side engage and lock it into Walker mode.

Then if the user wanted to make it into a cane again they would just simply hit either of the two locks on either side, push the walker together, and form a cane again.

Moving down to the bottom we have the wheels.

We wanted to make sure that the user would be able to use this both indoors and outdoors so we did some research and found that 5 inch wheels were necessary for outdoor use.

We also need the wheels to clear the ground in cane mode, so we had to make the geometry such that as you collapse the walker into cane mode the wheels would lift off the ground and above the skids.

This brings up to our dual purpose skids These skids were designed to be stable in both modes There's a low friction surface for sliding in walker mode and a high friction rubber surface for functionality in cane mode.

How did you decide what material to include in your presentation?

To some extent the material was stated by the requirements of the class they said that you need to do a financial analysis, you need to tell us how you made this product, you need to tell us why anyone would ever buy this product or why anyone would make this product.

So that was the main reason we included what we did. How we arranged it was a little bit more up to us.

So we felt especially given that we had a significant non technical portion of our audience It was important to motivate the "how" and "why" and show who can benefit from our products...