Making Thinking and Learning Visible Through: Inquiry
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Narrator: In this video, you will hear how full day early learning kindergarten teams across the province are rethinking, removing, and repeating practices in relation to inquiry based learning. Full day early learning kindergarten teams have been rethinking abstract, theme based planning. They are repeating inquiry based planning that is focused on concepts from the overall expectations, and is informed by the childrens' ideas and interests that they can deeply, and directly explore.

Group one:

Speaker2: We definitely removed our theme thinking, into more of inquiry based. At first it was a big challenge while we were in our process of changing things. We thought it would be a big challenge, but we were surprised as to how far this change actually took the children, and where it took them.

Speaker1: Yes, absolutely, and what's great about, actually, getting rid of those themes and going into more inquiry based is, that the idea in the inquiry model, the ideas are coming from the children themselves. And when the students are really interested, they're really motivated to participate, to learn, and to get involved with the learning. And it just makes it a little easier for us if the idea has come from them.

Speaker2: They're really engaged. We notice that they're really engaged in the learning. Maintaining the same curriculum expectations that we would have seen in the theme based learning, as opposed to the inquiry, we've noticed that their attitude, their excitement, their thinking, everything that they're instilling by themselves and they're experiencing on their own, it's taught them to self-regulate, develop self regulation skills and strategies using inquiry based, because they're feeding off of each other, more than having just the teacher lead the discussion and the focus, and the activities.

Speaker3: Also, when planning, we've been using verbs instead of nouns, so an example would be, learning about growing instead of plants. So that's another way of looking at our inquiries instead.

Group two:

Speaker3: One of the video clips that I watched was about a kindergarten teacher who had decided to get rid of her themes. I've been
teaching kindergarten, this is my tenth year, so for the other nine years I was very theme based, had the beautiful calendar made up with all the pictures on it to go with the themes, everything in the classroom was about the theme. And in this video, after I watched it I thought, you know what, that's a remove for me. I'm going to go back, this is a new program, a new year, it's time to get rid of those boxes, and try something different. This is the year to do it. For me, the themes, now I realize, were extremely limiting to the children, and to myself as a teacher. So there's so much more freedom in our whole day right now, it's more based on what the children need, what they are wanting to learn about. The themes are in the back of my head still, for sure, it's hard to get rid of them completely, but I've definitely changed my whole approach to teaching kindergarten. And the results I've seen this year are great. It's the neatest thing to see. After doing this for ten years you sometimes think, oh, another day, but it hasn't been like that at all this year. Every day is so exciting.

Speaker1: So you've managed without your themes?

Speaker3: I have.

Speaker1: Which is amazing. So then Gloria and I have had opportunities to talk about themes from the perspective of an early childhood educator, because many ECE's plan also from the perspective of themes. And so Gloria, I wonder if you could talk a little bit about your initial perspective, entering a school system, and this whole thematic planning. What did it mean to you?

Speaker2: There was definitely a time where I would have been using theme based programming, as well, but it was more, we provided the materials and then said, okay, what can you show me with this material? And there wasn't the pressure of the expectations behind it, so it was easier to follow the child's lead.

Speaker1: Right, and we've talked a little bit about that from that balance of child-led, child-initiated, to the extreme of being teacher dominated. And it seems that we're trying to bring these worlds together to create this sweet spot, really, where there's intentional actions on the part of the team to support the children and their interests, as well as their learning needs, obviously.

Speaker3: And I think that's the partnership that has been formed. It is definitely more inquiry based. I had a little boy the other day bring in Killdeer eggs. Also, at the Ministry training in the summer, we were challenged to remove show and tell, which is a huge thing for kindergarten teachers. And I thought, I'm going to do this. It's time to remove this, as well. So I left it open to the parents that if their
child found something interesting, or wanted to share something exciting that happened in their life, that option was always there, but we were not going to have a formal show and tell time. So this little boy brought in Killdeer eggs, and in the past, I would have had him up at the front and said, okay, everybody, let's ask those five W questions. What, are they?

Speaker1: We laugh now, because it seems funny, right?

Speaker3: Even though we knew what they were. Where did you find them? Why did you bring them? Who gave them to you? Why do you like them? But this time, it was much more open ended. I went with what the children were talking about, what this little boy was talking about with the Killdeer eggs. He started to explain how they Killdeer is fooling my dog, and I said, well, what do you mean by that? Well, he's pretending that his wing is broken to get my dog away from the nest. And I said, well, where is the nest, Seth? Well, it's in the ground. And I said, on the ground? What's it doing on the ground? Birds build their nests in the trees. And I threw the question out to the class, I wonder why the Killdeer has its nest on the ground. So then that prompted them getting very excited about this inquiry, and wondering why? Why is that? And we ended up doing some research as a class together, and finding out why they build their nests on the ground. I had a tablet in my room, so I showed them pictures of what the Killdeer looks like, and the icing on the cake was really when I could find the sound that the Killdeer makes. And as soon as I played that for the children, I know that bird, I've heard that bird before, and they could make that connection. And where that led after we had that experience, and Gloria and I talked about it and reflected on it, and how great it was, how involved the children were in it, how excited they were about the learning, it was the end of the day and you could have heard a pin drop in that room.

Group Three:

Speaker2: So you're really observing the kids and going with their thinking, and what they have discovered. I know that as teachers, some teachers have had difficulty letting go to do that. What about you?

Speaker3: Understanding that children were naturally curious, and that I knew that if I let them guide things, and could capture their interest, and their excitement about learning, that that could open up all kinds of interesting thinking, critical thinking and questioning.
Speaker2: Not feeding it to them anymore, it's waiting for them to come up with it.

Speaker3: Something brand new, and we started to say to them, what are your questions? And we actually started with ice and snow, what are your questions about ice and snow? And now they just come to expect that we're going to ask them what they want to know. Then we're going to provide them with opportunities to find out, and then we're going to say again, what did you find out? And what do you think about that? So there's records on our wall of our thinking, and our questioning, and the process we go through together to learn. So that's what you see on the walls as you look around the room.

Group Four:

Speaker2: I think with the belief, it would have to be the whole group instruction. That was a big shift for myself, because I always thought the kids had to be together at the carpet, and we have to tell them what our dramatic area should look like, or the hero centre should look like. And I think the fact that they have so much more input with this really helps re-shape how I think. Because now it's, okay, well, we might want to make a list with five kids rather than the whole group, and then those five students can share it with the rest of them. So it's almost giving them the ownership of their learning, in a sense, as well. And I think when we use assessment, whether it's videotaping, or cameras, and show that to the parents or explain the process to the parents, they end up having a better understanding of how the learning takes place. It's not just the teacher at the front and explaining it all, it's also their kids teaching other kids, or for other students.

Speaker1: And when we share the inquiry process with parents, they see how sophisticated the whole process is. The planning that goes in, the questioning, the discussing ideas, and parents really are amazed that their children are engaged in very sophisticated thinking.

Group Five:

Speaker2: Inquiry is a big part of our program, as well. We've taken the approach of, the inquiry process is very open-ended, but as the two educators in the classroom, we still have specific learning goals in mind with specific expectations from our document. The children have really enjoyed the inquiry process. We will place materials out
in the classroom to help foster that inquiry. They're learning to ask questions, make discoveries, and share their own learning with their classmates.

Speaker1: Sometimes they'll share it with a peer and say, look what I found, come see this. They'll often come and try to find Kim or I in the classroom to come and share that, and show that, and many times we've brought it back to the whole group where they will come and show what it is that they've done. So if it's with something that they've built, they may come and show that to the class, and explain their thinking. And we'll ask them to say, well, what did you find? Then the other children will be invited to come and ask questions about [it] themselves, so that they're having to explain and use their language about what it was.

Speaker2: We'll take digital images of something that they have created, or something that they have discovered, or they may draw in their discovery book, and then they will write about what they have discovered. We also have a class discovery book, the inquiries and the discoveries that we want to bring to the whole group to spark further inquiry, we will write about them in our class discovery book and they can share them there. We also project some of their images, or a video that we take, on the Smart Board in the classroom. So it really is in a variety of ways, we make the decision based on how we think that student can best communicate their discovery to the class.

Group Six:

Speaker1: When we're planning our inquiry projects, we of course take a look at the curriculum expectations, and we also think carefully about the needs of the students in our classroom, because we want everything to be as experiential for the children as we possibly can. We try to design each learning experience so that the children will have a lot of different experiences. Some would be very hands-on, some would be probably discussion based. We try to integrate as much technology as we possible can. When you include the children's ideas, the children are obviously more engaged. They really put their heart and soul into each experience that they're having, and I think we find a lot, Angeline(ph), that the students take more control of their own learning, and they also, then, start to come up with their own kinds of ideas and theories of what kinds of things they could be doing themselves.
Speaker2: They also take on interests, and they guide their own learning, in the sense that, they want to learn something specific, so they take it from there and they inquire about that. And then together, we learn together as a team, and as a whole class.

Speaker1: I would say, just be brave and try it. At first it feels almost like you're not doing your job in a way, because you're supposed to have everything under control, and know exactly every single thing that's going to happen. But I think if you have a framework around which you know several things will happen, then once you give yourself and the children the freedom to start to begin in an inquiry method, you'll find that it's much easier in a way, because you do incorporate the children's thinking, and their interests, and their learning. And then you'll start to see a pathway as you get through.

Group Seven:

Speaker2: One of the things that your team has been very intentional about this year is, following the interests of children. And I know that, at the beginning of the year, there was a lot of questions that you had around what that looked like. And you've done some rethinking about what it really means to follow the interests of children. Could you talk about that?

Speaker3: In the beginning, it was a little daunting to think, well, what if they have 19 different interests? And it just happens naturally. And we just had to be patient and wait for that, and they showed us what they were interested in. It just so happens, they had many common interests, such as, construction, and being out in nature. And from there, in the classroom, we were also able to do small group interests.

Speaker1: And just to add to that, it is so interesting how the kids, when it came from them, how they wanted to do it and they were eager to write, and to read about this stuff that was interesting to them. So it's very interesting just to sit back and listen to what the kids have to say, watch what they're doing, and ask them the right kind of questions that are open-ended, and then you hear where they want to go, and projects can last and sustain for months.

Speaker2: One of the things I know that we talked about early on at the beginning of the year around interests was, it seems like their interests are changing every single day, each day they're wanting to do something different at the dramatic play area, or at the art studio. And so I know that the two of you have been really responsive in taking a step back and saying, so what is this really about? It's not
about, necessarily, the veterinary clinic, or the doctor's office, because the children are so capable of changing their dramatic play independently, based on what they feel like doing in that centre that day. But you two have taken a really proactive approach around observation, and how that informs what children are interested in, and how you respond to those interests.

Speaker3: And I find that the large group meetings that we have as a class, where we sit, we communicate, we talk about what's going on in the classroom, well, why aren't you going to this centre anymore? I like change, I like to do something different, and it's looking at the environment, and changing the environment so that it changes with them.

Classroom Observation One:

Teacher: And just in behind you can see they're also doing speaker's corner, where they've formulated their own questions, and they're asking the different students questions. The children have created a question, they've designed their question, and they have independently written, do you like frogs? How about Kiara(ph), do you want to be interviewed by Grenor(ph) and Janvi(ph) for the question of the day?

Student: Okay. The question is, do you like frogs?

Teacher: So can you position it?

Student: Do you like a frog?

Student: Yes.

Student: Why?

Student: Because they're funny. And they hop a lot. And I like them.

Student: Why?

Student: That's the only reason why I like frogs. And I like them.

Student: Okay, thank you.

Student: You're welcome.

Teacher: So does she like frogs?
Student: Yes.

Teacher: Okay, so what are you going to do now?

Student: Write your name.

Teacher: Did you write your name, Kiara(ph)? What are you looking for?

Student: Her name.

Student: I'm going to write my name.

Teacher: Now who?

Student: Janvi(ph), you go.

Teacher: The children decided to come up with the idea, some of them had been collecting stones outside, and so we decided that we could add that to our Play-Doh centre. So both the children, and myself, and our educator, Mrs. Gupta(ph), we brought stones in and we decided to make mosaic art. We've collected some books from the library to also support their learning. We decided to use open-ended materials so that the children can create, and design art.

Classroom Observation Two:

Teacher: What kinds of things have we been researching this week?

Student: We've been researching cameras, and we've got some cameras over there.

Teacher: Yes, and what kinds of things have we been finding out about cameras? Ian(ph), what did you find out about cameras?

Student: Cameras can go under water.

Teacher: Okay, so we've played around with an underwater camera. What else have we discovered. Liam(ph)?

Student: We discovered of light and dark.

Teacher: Light and dark, okay. Miguel(ph)?

Student: Reflections.
Teacher: Reflections. And how did we do that?

Student: I can't remember.

Teacher: Hailey(ph)?

Student: I've discovered that there's a little glass piece inside the camera, and then the lens, the first glass piece makes it upside down when you look through it, but when you add the lens on, it makes whatever image you're looking at turn right side up.

Teacher: That's right, yes. We found out a lot of neat things about mirrors, and what they can do. What makes us such good researchers? Why are you such good researchers? What kind of things do you do to be a good researcher?

Student: Figure out stuff.

Teacher: You figure out stuff. What do you do, Angel(ph)?

Student: Dig in other people's stuff.

Teacher: You dig in other people's stuff. Have you dug into each other's research?

Student: Yes.

Teacher: What else do you do? What does that mean, to dig into someone else's research? What does that mean, Miguel(ph)?

Student: It means that you bring dig into people's research, and then you get smarter.

Teacher: Well, how do you find stuff out, though? How do kids like to find things out? Liam(ph)?

Student: Because kids like to play, and you need to play to do it, and kids like asking questions, and that's why they need to do research. It's all kinds of stuff that kids like to do.

Teacher: That's right, we think so, too. Charlie(ph)? How do you find stuff out? Do you like playing with things to find stuff out? Could you look in something to find out? What could you look in?

Student: The flash.
Teacher: You could look at the flash to see how it works, yes. Miguel (ph)?

Student: You could also look in a book about cameras.

Teacher: You could look in a book, yes. So today we have something to show you that will help us learn more in our inquiry. I want you to make some predictions. Any predictions of what this might be?

Student: A black box.

Teacher: It is a black box, what do you think is inside?

Student: A camera?

Teacher: Hailey (ph)?

Student: Is there little mirrors in there that we can make reflections with, and do experiments with?

Teacher: Well, I don't know, but there is a clue on the front. Do you see the clue? What do you think that says? It's a tricky word, isn't it? So it says Polaroid. Polaroid. What do you think that means? What do you think Polaroid is?

Student: Cardboard.

Teacher: You think it's cardboard? Gionni (ph), do you want to open it up?

Student: Camera.

Student: Whoa, that's a cool one.

Teacher: Is there anything else in there?

Student: Yes.

Teacher: Take it all out and put it on the floor.

Student: Ooh, that's a new one.

Teacher: Can you pass me that?

Student: I think that's the flash.

Teacher: Here, pass that around.
Student: No, the flash is up there.

Teacher: Why do you think it's the flash, Mikayla(ph)?

Student: Because I think that's the light on it, because it looks like the flash a little bit.

Teacher: Okay, so what do you notice about this camera? What do you notice about this camera?

Student: It's just a little bit old. It looks like it's old.

Teacher: Okay, so Logan(ph) noticed the number two. Hailey(ph)?

Student: What I think it is, is a video camera that is a waterproof one.

Teacher: You can pass it around, yes. Do you want to keep passing that around? Does anyone else notice something?

Student: That the lens are kind of small.

Teacher: Okay. So you noticed that the lenses are small. So you noticed two things, didn't you? Liam(ph)?

Student: There's a picture on the flash.

Teacher: You noticed a picture in the flash?

Student: No, right here.

Teacher: What is it?

Student: A picture of that.

Teacher: Okay. Interesting.

Student: I noticed more of them.

Teacher: Okay, so we can pass some this way. What do you think this is?

Student: There's just paper that's weird. Hailey(ph)?
Student: I think it's a strap that goes around your shoulder so you can take the picture.

Teacher: Okay. Isabelle(ph), do you notice anything on the camera? Do you want to hold it? What do you notice on that?

Student: Words.

Teacher: You notice words on it? Why do you think there's so many words on it?

Student: It might be instructions.

Teacher: It might be instructions?

Student: How it works.

Teacher: Well, what I'm thinking is, we'll put the camera at our inquiry table and you guys can spend some time looking at that.

Student: Okay, and what is this?

Teacher: Well, that's what we have to figure out. So do you think you would like to research this camera today?

Students: Yes.

Teacher: Okay.

Student: I think we have to hook another one together with it and get it in the camera.

Teacher: You think you have to hook two of them together? Okay.

Student: You have to hook all them in the camera, then the camera could work.

Teacher: Maybe.

Student: And the water could get in these holes, and it might be not a waterproof camera.

Teacher: It might not be a waterproof camera. Charlie(ph), can you carefully go put that on our table over there so you guys can research it after? And Gionni(ph), you can put the box there. What do you see?
Student: Numbers.

Teacher: Oh, so Charlie's discovered-, look. Do you see what she's discovered?

Student: Numbers.

Teacher: Interesting. So what do you think the numbers are for?

Student: There's a number two right here.

Teacher: Yes, but look what else she noticed here. What do you think that means?

Student: Maybe to turn it what way and make it straight.

Teacher: Okay, well, you guys have some investigating to do today.

Student: But I noticed in the camera, I saw on the side a round thing and it has arrows on it.

Teacher: You noticed a round thing with arrows on it?

Student: Yes.

Teacher: Okay.

Student: Pointing in a circle.

Teacher: So lots of questions to think about, about that camera. Hailey(ph), do you mind collecting the flashes and putting them at the table? And then we can continue on in our meeting. Because what we want to do now is, connect our new camera to what's been happening over the last few days. Why did you think there were so many numbers on the camera? What were some of your theories? Does anyone have a theory on that? Why are there so many numbers on the camera? Liam(ph)?

Student: I think to turn this other light thing away, and closed. Open and closed, because the other cameras did.

Teacher: To turn the shutter open and closed?

Student: Yes.

Teacher: Any other theories?
Student: I think the numbers are for so it could go back and forwards.

Teacher: Okay. So hopefully today you guys will be able to solve some of those mysteries. So I want to talk about a couple of mysteries that have happened over the last couple days. So the first one, Hailey(ph), can you explain what your theory was the other day? Because I have something very special for you today, so you do you want to just share that?

Student: I thought that one light bounces off a mirror into one prism it doesn’t turn into coloured light, but when it goes through a second, it does.

Teacher: Okay. And then so what did I ask you to do?

Student: Try it out.

Teacher: Okay. So then what happened?

Student: I noticed that one prism actually makes a rainbow. And then I drew it.

Teacher: So Hailey(ph), after that you had an idea for an experiment. Do you remember?

Student: There’s a bunch of flashlights all taped together with candy wrappers on them, and then you turn the flashlights on and then they make that coloured light. Like brown, blue, green, pink, red, purple, and yellow.

Teacher: Okay. So would you like to try that today?

Student: Yes.

Teacher: Because guess what I brought you?

Student: Flash lights, and tape, and that stuff?

Teacher: All right, so I hope you have some friends help you research. So we’ll wait until we go, but you can test that theory today, and then report back. And then Will was sharing his learning yesterday and he wanted to show you guys, and our prism was gone. But we have one now, so can you explain what was happening?

Student: When I put the prism on the top square of the light table, then I put the diamond on the front of it, then I put a picture on the bottom big square, then it made a bunch of them. And when I turn it, it turned a bunch of them.
Teacher: So can you remind us and show us how you drew that? You did a very interesting way of showing it. How many lights do you think you saw when that happened?

Student: Lots.

Teacher: So can you show us?

Teacher: We talked a bit, too, Will, about the prism that we were using, and what did you think made all those circles? Because the diamond had?

Student: A bunch of flat parts.

Teacher: Right, the flat parts help make the circles on the wall.

Teacher: Yes, ask him.

Student: Will, can you show it on the light table?

Student: Mm–hmm.

Teacher: So let's go see. So what do you notice, Will?

Student: That there's a bunch of pictures.

Teacher: And what do you think is causing that?

Student: These little flat parts on it, and there's a bunch of tiny ones on the bottom here.

Teacher: Do you guys have questions for Will?

Student: If you do it down here, then it will make those round circles. Like a dance party.

Teacher: How do you make the round circles like a dance party? Who was doing that? That was Tanner. Tanner, do you want to show how you made the round circles?

Student: Sure.

Teacher: Okay, what did you do differently?

Student: I had a big crystal, and I put it here with the light on and I spinned it.
Student: Yes, like there’s a bunch of-, see, it's on every one.

Student: Then I spinned it fast.

Teacher: So can you see on the wall, boys and girls, can you see the…

Student: It's on you, Will, even on me. Wow.

Student: There's two Mikayla's(ph).

Student: I can feel it going on me.

Teacher: You can feel the circles? Well, thanks, Will, for sharing that. Can we come back to the carpet? And then we're going to get started on the day.

Reflection:

Speaker1: Our camera inquiry started with these two boys here. They built cameras out of blocks, and I said, can I take your picture with the real camera? And they said, sure. So I took their picture, and then this boy said, well, can I take your picture, Mrs. Ponte(ph)? And I said, sure. So I think letting them use the real camera just started this whole snowball effect, and we noticed later on in the afternoon, other children started building cameras. And the interest just grew, and grew, and grew.

Speaker2: And I think that's something we really look for is, are other children joining into the play? And is it something that we could take to a deeper level.

Speaker1: So then from there, I brought in some old cameras for them to look at, and I think they really liked that they were real, and that we allowed them to touch them, and look at them, and examine them. And I just think it made the whole experience just so much more authentic for them.

Speaker2: And we kind of offered it back to them, we saw the interest continue, we saw more children building cameras, so at our meeting, we offered them that topic for inquiry. Would you like to continue to explore? And so we created on a chart a web with the children. So we negotiated where we could go with the camera.

Speaker1: What they would like to see, what they would like to do.

Speaker2: And we don’t feel that the web is something we need to check off, it's just possible avenues that this might take. And this process
really allowed us to bring in the curriculum, and decide how can we take this interest, this topic, this engagement, but still make sure they're accessing the areas of the curriculum. So it's a negotiated process.

**Speaker1:** And from there, they decided to call an expert, who happened to be my husband. And he came in, his family used to own a photography store, so he was the perfect person to come in and talk to the children. He brought a big camera and allowed them to look at it, and they noticed, when they were looking through this camera, that everything was upside down. So that started us sort of a jumping point to reflections, and why was it upside down, and how do they get it to be right side up? I think that was the inquiry question.

**Speaker2:** So it's very different from a theme, because not all the children are expected to participate in the topic at all times, and they weave in and out of the inquiry, and they bring different things to it, and I think that's really important. We don't expect them to produce the same work, and we find that their learning is richer because of it. So some of them really enjoy observational drawing, some of them constructed cameras, and some of them are decomposing cameras. And when we share the learning with each other, it takes their learning a lot deeper, because they see those many different perspectives.

**Speaker1:** I think it's nice because every child can participate in their own way at their own pace. They can bring in what they've maybe learned somewhere else, and they can let the other children know about it. And I think we really noticed, say at the beginning of the year, children that were maybe a little bit more shy, and they didn't want to share as much, but through this process, they become so much more comfortable, and they really start to take an ownership of their learning.

**Speaker2:** Well, I think it empowers them, because regardless of their development, they all feel that they can contribute something, and it's all important and valued. So a child asked to make a camera, it started with one child, and sometimes it's finding materials because the child wanted it to be silver, and it doesn't always happen that day, but we try as much as possible to follow through on the thought. And I think that is going to really teach children persistence in learning, and I think that's a skill that they need to be able to really continue on with their learning as far as it could go. So they don't see necessarily an end to learning, they see it as an on-going process and they get the connections in the things they're doing.
Speaker1: I think it's, again going back to, that every child can contribute in their own way, and I think this year more than any other year, they're not stressing about, I don't know how to spell the word, because they can do it in so many other ways. They can show us what they've learned in a way that they feel comfortable. Like we have children that make up songs about different things that they've learned, or they draw pictures, or they paint, and I think to them, that's just....

Speaker2: I think when their confidence is that high, they're willing to take risks, and then we can offer more and they're not afraid of failure. I think that's very important, because their successes are celebrated all the time. They feel it, they share it with each other, we can see it.

Speaker1: They're very proud of themselves, you can just see it in their eyes when they've completed something, and they just want to share with everyone.

Speaker2: And we noticed over time the others are starting to affirm as well. So it's not just that they're proud, it's that their friends are proud for them. And we develop a learning community through that, that's what makes it a community.

How is the research going?

Student: Good, we just shut them off so they didn't use their batteries so it could still work.

Teacher: So what kind of problems did you come across when you were doing this?

Student: The buttons.

Teacher: The buttons?

Student: Yes, the switches, but we uncovered them.

Teacher: Oh, so were they covered up the first time?

Student: Yes, except that one.

Teacher: So are you ready to test it out?

Student: Yes. Turn them on. They work.

Teacher: I wonder if we could turn the lights out and see.
Student: Yes. Can you make an announcement so everybody knows it's coming?

Teacher: Oh, sure, okay. Why don't we turn the lights off then.

Student: These?

Teacher: Yes. So Hailey(ph) has finished her research and she has asked me to make an announcement so that you guys can come and see how it works. So if you're interested, could you quietly come over? She would like to show you.

Student: (Displays project.)

Teacher: So Mikayla(ph) and Hailey(ph) were telling me they did encounter one problem when they were constructing this. What was that problem?

Student: The buttons, but we got the buttons uncovered. That one, that one, that one, that one, that one, that one.

Teacher: Does anyone have any feedback for Hailey(ph)? I know a lot of you helped make this today.

Student: The yellow sort of looks like (inaudible).

(Student discussion.)

Teacher: So what should we do with this now? What plans do you have for it?

Student: Maybe what we could do is, if the lights go out we could turn these flashlights on and then we could have a extra light in the classroom.

Teacher: Use it as an extra light in the classroom?

Student: Yes.

Student: Then we could have this hanging up somewhere.