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00:06 Speaker 1: Hello, and welcome to another edition of Popular Podagogy. A podcast brought to you by the Faculty of Education at Queen's University. I am very excited today because we have three special guests joining us, it seems like we get more and more guests each month now, which is very exciting, and they're here from the Eastern Ontario Staff Development Network (EOSDN). So I'd like to introduce Eleanor Newman, Danielle LaPointe-McEwan and Tammy Billen. So, welcome everybody.

00:40 Tammy Billen: Thank you.

00:40 Eleanor Newman: Thanks for having us. Yeah.

00:42 Danielle LaPointe-McEwan: Yeah.

00:43 S1: Absolutely. So I wanted to just start off. I know that I have a little bit more familiarity because you all work in our building at Queen's, but can you give us, Eleanor, a little bit of information about EOSDN and what your goals are and what you do, and how that relates to teaching and education?

01:01 EN: Yeah. The Eastern Ontario Staff Development Network is a network of the nine English language district school boards in our region, both public and Catholic, and it has been in existence since 1989, so it's a long-standing collaboration amongst those district school boards, the network... Everyone who is an employee or connected with those school boards is a member of the network, and the network exists to address in a collaborative kind of way key questions or key needs that the district school boards feel are better looked at across our region rather than, or in addition to, looking at it individually. So with respect to our mathematics project, every district school board, every school, every classroom is working to help students come to make sense of mathematics, but there were some larger questions that we felt could be addressed regionally by bringing together the expertise from each district school board and adding expertise from researchers and just working together to think really deeply about the practice of teaching mathematics in classrooms.

02:12 EN: And so the network brings experts from the classroom, experts from districts, experts from Queen's together so that we can merge our different understandings about students and how students learn and how... The mystery of student learning and come together to try to illuminate all of that so that we can really answer three major questions, which is what's going on in kid's heads? What are they thinking? How do we learn from each other as teachers, who have responsibility for kids learning, and how do we elevate our profession by adding the wisdom of practice into the dialogue for improving teaching and learning in classrooms, further advancing the fluency of our educators. So that's really what the purpose of the network is. We have other projects other than mathematics, but this podcast is about math, so I'll stop there.

03:07 S1: And I love that you gave that answer because that was very detailed and it was very well outlined, but how is it that you work specifically with Queen's and then with the school boards, and then with individual teachers to make it so it kind of all comes together? How is it that... Because that's the big mystery in higher education, is how can we take the information that we gather and use and bring it into practice, and I think this network actually does a really good job of that, so can you talk a little bit more about that?

03:35 EN: Sure. I think what the network provides is a way for people to learn together in teams. So when the network, the District School Boards determine that there is an area of focus for a project or for an initiative, then the network, they asked the network to design something and so the network is comprised of very few actual employees, it truly is a network, so when we're asked to work on a project, then we seek out some like-minded people to work on the project with us, and so Tammy often tells the story, the storyteller of how she became the project coordinator. So Tammy, how did you become the project coordinator in a coordinator of the Math project?

04:27 S1: I like this, Eleanor is already asking questions and taking my job away. That's perfect.

[laughter]

04:32 TB: She is a master at facilitation. So, thanks again for having me on today. Basically, I am a teacher with Hastings Prince Edward District School Board, and I've been teaching there since 1997. So in 2013, when the project began, the EOSDN math project, Eleanor had posted a project coordinator posting for the job. At that time, I was the math coordinator for a board, and I had been for three years. And I was going on leave that year, actually, an x/y leave and thought, "Oh, maybe I'll do a little extra work and apply to this interesting project, so that's how my role began in the project, and it was supposed to be a one-year project actually, and extended many years after, so I felt that in applying for that, my understanding of the classroom teacher perspective as well as a math coordinator perspective, really helped to facilitate the learning and address the needs of the coordinators within the district school boards that we addressed as well as the students.

05:37 EN: Okay. And Danielle, how did you end up with us?

05:42 DL: Well, it's a funny story, I guess. A little serendipitous. So I had just started my PhD at Queens at the faculty event, and my supervisor at the time, Don Klinger, was the official research partner for Queen's with the math project, and he knew that I was really interested in professional learning, maths teaching and learning assessment. All the things that the project would be focusing on, so he asked if I wanted to be part of it, and I said, "Sure." Having no idea what that would actually entail and how many incredible things would come out of it, so over time, because as

Tammy mentioned we thought it would be one year, but it actually ended up being six years, which is just phenomenal over that time, my role as a research partner grew. And Don actually ended up moving. So by the end, I was the lead research partner, which was cool, and by the end I actually had a PhD, which was also really cool, largely thanks to the educators and the network. And their support of my research. So I learned so much along the way, and it was just... It was such a gift to be part of this and really unprecedented to be able to, as just a PhD student coming up, to kind of grow up in this project and work with these amazing people and learn so much from them along the way and be able to contribute regionally as well.

07:06 EN: So what those stories reveal is how the network actually operates, so the board of directors is comprised of senior staff from district school boards, and the board of directors brings their District School Board needs in alignment with their board improvement and school improvement plans. So they come to the the decision-making table and they determine what is an area or areas of focus that we want to work out regionally, so they determined math was an area, and that certainly dovetailed nicely with provincial direction as well at that time, but how the network works is we are very much on the ground in the sense that our goal is to influence student learning, so our goal is in classrooms with students and teachers. And that process of teaching and learning. So when we create the teams that actually do the work, it's very important to us that those teams are comprised of people who are doing the work in classrooms, and so the math project leaders, if you will, were teacher leaders who had been selected in their boards to be coordinators of Mathematics, but they are teacher leaders, not administrators, right, they're teacher leaders who have responsibilities for program leadership in their districts, and that's why it was so important to have someone like Tammy be on the core team.

08:26 EN: So the three of us here would be, I guess what people would call, the core team, but the real team is bigger because it's comprised of the coordinators from the different district school boards, also, it is very important with what we do in the network that we have, practice-based, research-informed work. And so when the network embarks on an initiative or a project, we want to be research-informed, so it's important to have research as part of it, but we also are practice-based and we really work hard, and Danielle is the expert on the different researchers or the different people who published and who talk about such things, but we really want to have that balance between research-informed and practice-based evidence, and we are trying to have research-informed ideas be part of the dialogue, but we have even greater respect, shall we say, for the wisdom of the classroom.

09:21 EN: Because researchers are wonderful to tell us what's been and found effective, but only practitioners can tell us when that is effective, in which classrooms with which children, on which day? And so in order to actually achieve implementation, which has an impact on students, we need to have the practitioner wisdom be part of that dialogue, and that's what this project and all of the annual reports that we've provided in the monographs, that's what this project really illuminates it takes the best ideas that are out there in terms of studies that have been done, but it adds that very important feature and student voice saying, "Well, this works for me," and the students tell you what works and what doesn't work, like, students will say to you "Don't forget I'm alive right now."

10:07 EN: That's one of my funny student stories, is when, a student asked me why we were doing something in the classroom, and I was pausing to come up with a really good answer, and he said, "I know you're gonna tell me I need this in my life, but don't forget, I'm alive right now." And so the student voice is really important too... Helping the students make sense of the teaching and learning

in the classroom, and that doesn't always happen just because we bring in the latest toolkit that's been produced, or just because, we have the manipulatives on the table or whatever, all of those things are important, but it's the magic of the wisdom of the teacher that makes it happen for an individual student, so the teacher voice and the research voice are absolutely critical to what we do in the network, because our goal is to actually make things... Make outcomes better for kids.

10:57 S1: Yeah, and I think that that's... I was hoping you would answer that way, because I think that's a really important part of what you're doing is that you're not just taking research and saying, Oh, this is useful research to your teachers, read it, you're taking research and then you're finding ways that this can be applied, and then you're finding leaders and teachers who will apply it and then using that to further build on what was done originally, and I think that's such a key idea and a key mentality in making research beneficial to other teachers by actually putting it into practice and showing how it can be put into practice and then also using teachers in the field to give you feedback as to, "Well, this worked at this time, but it didn't work at this time," and the other thing that I really enjoy and like about this is, it's not one school board, it's not one area, it's not one school, it's across a region. And so you have a lot of different perspectives and you can see maybe something that works in Kingston that doesn't work in Prince Edward County or somewhere else in the region, and you can also see why, and so there's so much valuable information that comes from that, that I think really is important about what you're doing, and that's me just monologuing about how much I really appreciate what you all do, so thank you for that.

12:19 S1: But I'm gonna transition now a little bit, and we've alluded to it now, a couple of times where we've talked about the monograph that you've put out recently, and the project that you've been working on in terms of the math project, and I loved... First of all, the branding on this was fantastic because to call students, students of mystery just puts you right into a James Bond film, or at least... At least in Austin Powers film, because that's where your mind goes immediately, but can you tell us a little bit more about what students of mys... Or who students of mystery are, and how that applies to this math project.

12:58 EN: Students of mystery, and other people have come up with other ways of describing these students that may be more respectful than student of mystery, but student of mystery is a phrase that I did coin, because in my teaching experience, in my own classroom experience, there always seem to be students of mystery, and they were students who were... They were with me. They were not trying not to learn, they were trying to learn, they were participating, they were doing... Trying to make sense of what we were doing. But they weren't learning. And so it was a mystery to me because I was working really hard and trying all kinds of things, and these students weren't learning, it wasn't huge numbers in a classroom because in most classrooms, teachers are quite effective in bringing many, many students to learning, but there always are these students of mystery and every teacher has them in their classroom, and they are a real challenge to your sense of professional efficacy, to your sense of being the professional you want to be, and they are the ones you worry about when you go home and so when we talked about students of mystery, the first thing was we all have students of mystery, so let's just work together.

14:23 EN: One of us cannot be the full answer to every student that we encounter, we need to work as colleagues, we need to work as professionals to learn with and from one another, so again, I come back to those questions, What's going on in this kid's head? So these students of mystery, what are they thinking about? How do I gain access to their mental models, how do I understand them as a learner, and what ideas do other staff members have? So it starts organically, it starts with

me and my kids in my classroom, and then it grows to the staffroom table where I come in, and I say, "Does anybody know anything about student X or student Y? Because I'm really having a struggle helping them learn," and then the teacher who had them last year go, "Oh well, I found that this worked and whatever," so you start to have these dialogues at the staffroom table, where people come together to try to assist one another with the student of mystery, and we decided in our project and with our monograph that we would ask students and teachers to help us articulate more clearly a process for making that informal helping one another around the staffroom table conversation, be more purposeful, more productive, and to be able to be captured through documentation and Danielle, of course, helped us capture a process that teachers and students told us over six years, this is an effective protocol, this is an effective way for us to collaborate professionally, and to be able to assist students.

15:48 S1: Yeah, one of the things that I really loved about the student of mystery portion of the project, aside from the name obviously, is the idea of putting together a student profile because it's very easy, and I remember when I was teaching, we would often have informal conversations among... I taught in the upstairs, which was where our junior high area was, and we would have informal conversations among teachers in that area, but we never thought of going beyond our school, or if we did, it was only maybe two people that we knew who were other teachers and we would give a very specific scenario. In this section of the project, and correct me if I'm wrong on this, you're creating these profiles and then you can share that with other people who are creating other profiles and compare the profiles against each other and see what's working for one student, maybe somewhere else and see what's not working and how can you adjust and then that's really opening it up for that collaboration, so do you, either of... Tammy or Danielle, do you wanna jump in on that and see if there's anything that I missed out of that part and how that can really affect this project.

16:56 TB: So as Eleanor was speaking there, what was going through my mind is that, at the beginning of our project, what we realized is that in order to address the needs of our students of mystery, we as educators need to understand the content that is being actually learned by the students, and what we were finding was that, a lot of us weren't overly, or not... Not overly, but sometimes weren't as familiar with the math content or the conceptual understanding to address those needs, so that was kind of the focus of our learning for the first few years of the project, as we became more savvy with the math curriculum and our content knowledge that led to our, more precision around our students of mystery, we had teachers in the project across the nine District School Board saying, We have these students and we know they can learn, we just don't know how to address their needs through their strengths. So that's what really led to the delving into the learner profiles and delving into the learning for all document, which really gives an overview of class profiles and barrier profiles, but what the learning profile did for everyone in the project was allowed us to identify two to three students within our classrooms and really focus on what are their strengths, what are their needs?

18:18 TB: And the important piece, as Eleanor alluded to, as well and spoke too... It wasn't just from the teacher's perspective, the learner profile is also from the student perspective, so Nathan, you're the student, the teacher says, "Nathan, so where do you feel your strengths are in math? Where are your needs? How can we help you with that? How do you learn best?" So really recognizing that learner profile is a collaborative approach, it is the in-school resource teacher, it could be the principal within the school, it could be the learning partner or a coach, and that's what was so, I guess, powerful within our project is that we had steering committee meetings once a

month with our project leads across the board, and they would bring their teachers learner profiles from their classrooms, and that really led to a deep collaboration and planning forward on how to address the needs, so they might identify that this is content knowledge.

19:14 TB: Our teachers need to understand more about the content that's being learned in order to address the needs of these students, so becoming very precise with our own personal learning and addressing our needs enabled us to become more precise to address the needs of our students.

19:28 EN: And being respectful of students preferences.

19:32 TB: Absolutely.

19:33 EN: Yeah. So each of us does not learn in exactly the same way, and it is true that as a teacher in a classroom, I can't teach 30 different ways every minute, but I can differentiate so that students can access the tools and the methods that most fit them as a learner. So some students are really... They're expert at seeing the patterns, using concrete materials, others are expert at seeing patterns more abstractly, like moving things around in their brains or... Where we can't see what they're thinking. But it was always about trying to access and give students a way to show their thinking, because they're all thinking, and what you really don't want is a student to think, I can't do this, right? That is not the thinking that we're after in classrooms. We're after... There might be if I tried this, maybe it would work. So when we hear people talking about students being more resilient in math and not having worries about math, really what we're saying is we want the first response in the students thinking about math to be... There's probably a way to figure this out. So what tools, what resources, what other person who can assist me?

20:52 EN: And so the real challenge in helping people learn is to make sure that the thinking never shuts down, that the thinking stays open, so if I'm a student and I've discovered this as an adult, learning more and more about mathematics as an adult, that some of the ways in which I thought mathematically, my mathematical thinking as a young person did not always match the example in the textbook, did not always match what the teacher was predicting would be how students would respond to a question, and gratefully now, educators are learning... Are much more open to different ways the students approaching the same problem even, right? Because they will approach it differently. There's more than one way to approach a math problem. And when we acknowledge more than one way, then we let all of the students in all of their different ways understand that this is good math thinking, and then we share those different strategies and everybody's enriched in the classroom from having more than one way to tackle a problem, because the next problem that comes up, or the problem that comes up in grade 11 may require a type of thinking that is not my natural way of thinking, and if I've had the example of other students and the example of multiple ways of looking at a problem, then I'm better equipped for the higher math, if you will, high school math.

22:12 TB: And I think that Eleanor speaks to us from a teacher perspective, that we are more open to different solutions, speaks to our comfort level with the content knowledge, so we are comfortable with saying, "Okay, I see your strategy" or saying, "I don't understand", and this is where the student voice comes in, so really important as teachers, we're allowing a lot more student voice in our classrooms, allowing students to voice their strategies so we can understand and not only basically teach our comfortable strategy, if that makes sense.

22:52 DL: And to build on that too, also a broadening of our approaches in how we assess student learning in math, so that really happened over time, so while our first three years of the project were really about educator and learning in our final three years of the project, we were really focusing on student learning and largely how do we assess that and leveraging those observations, conversations, demonstrations as well as product, so kinda moving beyond traditional ways of assessing student learning, and then using different approaches, which we'll I'm sure talk about in relation to developmental continua as well. So instead of just assessing students in relation to curriculum objectives, which of course we did as well, looking at their thinking and their learning developmentally, which became really, really important for those students of Mystery especially.

23:49 EN: And all of that talks about understanding and respecting the students' way of making sense of math. So when a student is struggling, when you listen hard, what they're really saying to you is, "This doesn't make sense. This doesn't make sense to me yet". And so when something doesn't make sense and it's not possible for that something, that bit of content or that bit of understanding, it's not possible for that to go into long-term storage in your brain, it doesn't make sense. All that goes in is like, "Math is hard, it's confusing, I don't get it", you know? And these are not messages that are helpful to kids or to society. So the idea is to help the student develop those concepts to understand the schema behind that, and sometimes if we just teach bits of content and we don't have the dialogue, we don't have a conversation, we don't talk about how this math connects with that math, and how we're building these conceptual webs, like conceptual understanding is key to students being Math thinkers over the long haul.

25:01 EN: One of the things that we discovered very early on and students taught us this, was that the Math processes that are identified in the curriculum are absolutely necessary, you cannot learn math content unless you are working through math processes, taking that content through the math processes. So while the result of several opportunities to learn math can be automaticity and understanding certain things like this, the process of going through that is what puts it into your brain in a way that you can access it quickly and know when to access it, right? So when I'm learning a piece of content, I need to be able to problem solve around that content, I need to be able to communicate my thinking around that, I need to be able to represent my thinking in different formats. I need to be able to be able to reason and explain why this is a solution that makes sense, given the data that I had, so all of those processes are really important to developing that schema, that then is like file drawers of math that are available to you when you tackle other questions. And so not only do you have the file drawers full of math, you also know which drawer open for this particular problem because you have a schematic in your brain.

26:14 EN: So students taught us that in order for math to make sense, we had to name the concepts, to be able to notice and name, and that actually is a phrase that's in our assessment document, which is why Danielle's comment assessment triggered this little dialogue, because if we don't notice a name with the aha moment that the student just had in their brain, then we missed the opportunity for them to have a category for that and to be able to access it later, so I could be really good at math every single day in my classroom, right, every single day as a kid, I could be really good and get all right answers on everything and not understand a thing. That could happen unless my teacher is skilled, and most teachers are very skilled at doing this, of being able to get the aha. Understand when the kid just had an aha, be able to name it. So that was back to Tammy's comments about feeling comfortable with those large... Those math big ideas, we spend a lot of time on a Math big idea, which is really critical to higher mathematics, called proportional reasoning. We spend a lot of time on number sense, which is understanding how we codify ideas in math by using symbols and

numbers and that kind of thing.

27:25 EN: So yeah, so the assessment, the assessment is not a grade, the assessment is not putting a mark on something, the assessment is having really good eyes and really good years in the classroom watching the kid while they're thinking, and be able to figure... Oh, they just got it. Sometimes they'll say, "I got it!", which makes it pretty obvious, sometimes they won't. You have to figure out that they got it, but being able in that moment to say, "This is what you just understood, this is so exciting because this is a big math idea", but that only happens if kids are doing mathematics, not just receiving mathematics, but doing mathematics.

28:04 TB: So recognizing that the teacher is a facilitator, the teacher is a facilitator of learning, so as students are learning and as Danielle and Eleanor have mentioned, the assessment piece, it's asking the right questions. So tell me more about your thinking. Can you add on to your thinking and making connections for those students, like the role of the teacher has changed, right? We are the facilitator now, which means we need to have the knowledge, but also you know the right questions to ask so we can understand our student learning.

28:39 EN: And this is probably a good time to point out that over the course of our six years, we have thousands of teachers of educators who work in classrooms be part of our project. So we're here sharing what they taught us. So again, the project is very organic in that it's rooted, and I don't know Danielle, you might wanna talk about the nested model, but it's rooted in the classroom, and so the voices from the classroom have taught us what we needed to understand in order to work the magic, the magic that happens when a teacher and a student or a student and other students come to an aha or come to a realization that this part of math makes sense.

29:25 S1: So I'm really glad that we got to the assessment portion of this, 'cause it sounds like that's a really strong part of this project, and one of the things that I think just listening to the three of you that comes out is that it's not just assessment from the teacher to the student, a lot of it is assessment that the student is doing themselves, but that's not easy to get to, and that's not an easy portion of learning for a lot of students, and so creating that environment and creating that culture and creating a space that they feel comfortable coming out and self-assessing and saying, I'm not understanding this, or I'm having trouble doing it this way, would I be able to try doing it this way, or even saying, I think that I would do better if I was doing something in a different way, and being able to express that and talk to the teacher in that way, and then having the teacher have the content knowledge and assess themselves and do their own self-assessment to be able to say, Okay, maybe this is my... And in teaching, we call that reflection because that's the big topic, and teaching is always reflecting on your own learning, but it's really important, if you have the content knowledge but you're not teaching it in a way that's going to reach those students, then you have to adjust and reflect there.

30:40 DL: So we're gonna take a little bit of a break right now, but we'll be right back with more Popular Podagogy.

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30:53 S1: Are you an Occasional Teacher looking to improve your job prospects? Are you an experienced teacher trying to reach the next pay scale? Are you interested in improving your overall teaching practice? Queen's continuing teacher education has you covered with easy to access online courses, you can log on to your course from anywhere you have access to the internet. Courses

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31:48 S1: And we're back with our core team from the EOSDN, and we have been talking about a mathematics monograph and students of mystery that they have put out. And a big part of that is looking at the CASMT visual map. So Tammy, can you explain a little bit more about CASMT and what that is and how that affects this project?

32:15 TB: Okay, so what I'm going to do is share with you the process for focusing on our students of Mystery and how the CASMT was integrated within that process, and then I'm gonna pass it over to Danielle and she's going to give you further detail as to what the CASMT means and what it looks like. So first of all, in the project, each teacher who was involved was asked to identify two to three students of mystery within their classroom, once they had done that, they developed a learner profile for each of their students of mystery, so as was mentioned earlier, taking a look at the student's strengths, their needs, talking to other staff, whether it was the ICER, the principal, previous teachers, the student themselves, parents to develop that learner profile to get to know them much better.

33:02 TB: Then the teacher implemented a given task with each student of mystery. And this was done one-on-one through questioning, observing and recording everything that student was doing to answer the question to understand their thinking. The teachers then collaboratively used the CASMT to know their students and plan with precision, so they analyzed student answers. They would then plan forward to implement instructional strategies to address the needs of the students, rue their strengths, once they had done this, they would reflect on the student and learning or educator learning and plan forward, and so as they move forward, they would implement a second task, implement the CASMT again and reflect on the student's learning growth. So I'm gonna pass it over to Danielle now to explain a little bit more about the CASMT process and the data collection.

33:57 DL: Right, so in our sixth year of the project, we were facilitating virtual regional sessions, and then our school teams were working with teachers face-to-face, so because of that, we had to be a little bit tighter in our process for the sixth year, and that largely led to this pre-post common task that Students of Mystery completed and analyzing those common tasks using the CASMT protocol in conjunction with developmental continuous. So going to that virtual regional session model actually allowed us to collect this regional data that elucidated changes in Students of Mystery's math thinking over a really short period of time, so we had a condensed project in our sixth year, we only had three months from the pre to the post task that students completed, so that was three months where teachers were learning, implementing new things with students and then implementing the pre-post tasks and assessing students thinking and math using CASMT protocol and the Developmental Continua.

35:05 DL: And we found regionally at the end of that three month period, that 42% of our Students of Mystery showed growth in one or more phases of math thinking. So that was pretty exciting and pretty significant because these were the students that were struggling in Math, these are the

students that the teachers identified at the beginning of the three month period to say, I'm having trouble reaching these students, whether they had identified learning disabilities or not, these were kids that were struggling with Math, that after a three-month period and using CASMT protocol to elucidate change in their thinking, we saw growth in almost half of those kids so that's pretty exciting, and I think really speaks to the effectiveness of the process that we share in the monograph, and that's a big reason why we're here today, because we wanna share that process with others because it's something that people could replicate in their own contexts with maybe some modifications, but certainly it's a process that teachers and school teams can use to support Students of Mystery in that.

36:14 EN: The thing that may CASMT, I think, very effective with teachers, and the reason that so many of the teachers said "This is like a game changer for us", is that the C stands for collaborative, so you do this analysis in the company of colleagues, the A stands obviously for analysis, the S and the M and the T are student math thinking. So a decade ago, we would come together to moderate student work, and we would bring products of student work and we come together to look at just the pieces of paper, and we would try to figure out from the pieces of papers what kids were thinking. CASMT is different because it was set up so that we were actually observing, asking kids to tell us their thinking and process while they were working on the math problem, and also the piece of paper that showed their thinking on paper, so the analysis of student math thinking went well beyond a product, it was the process of thinking, it was the conversation, it was the observation of the teacher, which is why the Student of Mystery approach is so effective because we're talking about selecting a few students and using this process.

37:24 EN: What we learn from that process, we then can use with all students, so it's not just that we're... These are the only three that are benefiting, many students benefit from the teachers going through this process, but we're only asking the teachers to focus on three students, so that we can fully use the cycle so that it becomes part of our professional repertoire of strategies and ways of thinking.

37:46 S1: And that's, I referred to it when we started, and when I asked the question is the CASMT visual map? And the reason for that is, in the monograph, you have this beautiful picture at the bottom that shows how this all comes together, and it's a nice mind map and it's very visual, and I highly encourage anyone who's listening to go and check out the monograph and see it. Because it outlines the protocol nicely, but then there's an actual visual of how it all goes into effect, and it works really well, especially for people like me who need to see how it goes in order that way, but you can really see how you're building on the strengths of the students and the needs of the students in that learner profile that we talked about with the student of Mystery and how you're using that to bring what they can do to what they need to do, and so that's why I think that's really useful. So speaking of the monograph, we need to let the people know where they can find this magical document. So...

38:53 EN: Yeah. I can fill you in on that. So one of the things you asked, the first question you asked was about the network, one of the things that's also true about the network is we don't hoard what we learn, we share. And so the network has a website, www.eosdn.ca so if you just google EOSDN or Eastern Ontario Staff Development Network, it'll take you to our home page, and then now on the home page, there are initiatives and one of the initiatives is closing the gap in math. And under that category, you'll find the annual developmental evaluation research reports that Danielle created for us based on the surveys and the input from the teachers and the students and the team

leads that were participating, and you will also find the most recent monograph, which we've been talking about today, from April 2020, you will also find the monograph that we did following our first three years, which talks about adult learning in relation... Like the teacher educator learning in relation to the project.

39:50 S1: Yeah, and I think as well, if you're on the Faculty of Education website at Queen's or on our continuing Teacher Education website, there's links out to your website too, so...

39:58 EN: Absolutely.

40:00 S1: If you're more familiar with those websites, you can also find your way to the EOSDN website that way.

[music]

40:07 EN: Yeah.

40:09 S1: I'd like to thank all three of you, Eleanor, Danielle and Tammy for coming on today. We definitely need to do this again, and I'd also like to thank our producer, Josh. He is always the magician behind the scenes that puts this all together, so a big shout out to him. If you have not yet, already done so please subscribe to our podcast on Apple Podcast, Spotify, Stitcher, or Google Play. You can also find us on the faculty of education or the CFRC website at Queen's University, and that'll do it for another episode of Popular Podagogy.