2021 NCSBN Midyear Meeting - Next Generation NCLEX (NGN) Forum Video Transcript
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Event
2021 NCSBN Midyear Meeting

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Presenter
Phil Dickison, PhD, RN, Chief Operating Officer, NCSBN

Welcome, everyone, to this presentation. I want to give you some updates on the Next Generation NCLEX. You'll all know, many of you will know, it's a journey that started many years ago, around 2012, and we got some exciting updates to give you and a look at what success might look like.

So if you'll come along in the journey with me through this presentation, we'll be giving you some updates on just exactly where we're at right now with our research, what the item development looks like at this point, scoring, how much we're going to score these models, testing, design, what the actual overall exam might look like. And finally, how we're going to do beta testing so that we can assure every one of you, one, that we can launch this safely, and two, that we can provide the best measurement that has become the hallmark of NCSBN and the NCLEX, and we can do that both with psychometric and legal defensibility.

So where are we now? Well, the first place is we've already done this. The green check mark tells you it's completed. We developed a clinical-judgment measurement model, we published a great deal of information on this through 2014, '15, and '16. And during that same time period, we started developing item prototypes.

What could items look like? If you were to remember, the NCLEX currently has multiple response items and multiple choice items. We found early on after developing the model that those particular items, one, could not measure, at its best, the concepts and the various elements of clinical judgment like cue recognition versus hypothesis generation.

And so we have started developing item prototypes. And I'm going to show you where we've ended up on that and what new items might look like as they appear on the NCLEX. We also created a great deal of due diligence around, how usable are the items? And I don't mean just usable from a psychometric perspective or can they actually be scored, we know that too, but could individuals sit in front of a

and they're caring for, now, a 79-year-old client, they have two tabs they need to read, a nurse's note, a history, and a physical.

And then, the question is on this side. And so basically, if you take a look at this, the nurse is reviewing the client's assessment data, and they're going to be preparing a care plan. So they need to create the

from Bell's Palsy, hyperglycemia, ischemic stroke, or urinary tract infection and drag that condition up to the top where it says, most likely experiencing.

Then from there, they have to go on the left-hand side, pick two of the actions they would take based on that potential condition, and then take and draw from parameters to monitor what they should monitor based on those actions. So you can see this is a bit more complex, but it measures two or three boxes of the clinical-judgment model in a single item.

I will tell you a little bit more how those are going to get put in the exam later in this presentation. So let's talk about the status of item development. What is going on right now? Where are we at? So clinical-judgment item sets, we began that work in 2017, and I can tell you, we're pretty near launch goal of what we would need to launch, and then we would simply continue to maintain that bank.

So we've been really successful. The PN work began in January, this January of 2020. And even through the pandemic and some of the things, we've been able to continue that work. Our primary focus right now is PN work because, as I said, the RN work is pretty close to launch. Now, we will have to have a maintenance on that but really exciting that we're doing that.

The clinical-judgment, standalone items are in progress. So those have not being completely developed, but we are confident we'll be able to do that and wanted you to see what they might look like. So ultimately, I can tell you, item development is on track. Our project plan is in place.

We haven't missed anything. COVID has not slowed us down, and we are on track to launch in 2023, more importantly, spring or April of 2023. What's the scoring going to look like? So we're going to take a new approach to scoring these items. You can imagine that the way we've scored items before or today, as we're scoring them actually today, we score them as either right or wrong or what we call dichotomous.

You either get everything right or you get everything wrong. And that's worked well for us based on having multiple-choice items with four responses or multiple-response items with up to maybe six. The problem with that is if you start looking at what we were calling matrix items and you take a 3 by 5 matrix, there's a potential of 15 responses in that, and choosing to get all are right or all wrong has some problems with it both in terms of psychometric fairness and legal defensibility.

So what we've looked at is doing something where we call polytomous scoring, which means there are more possible categories. You are not one or zero, either you get it right or wrong, which suggests that on any item, if one of you get it right and I get it right, we have equal ability, and if one of us get it wrong or both of us get it wrong, we have no ability.

And we fundamentally know that's not true, but now with the ability to create larger-scoring categories, we can actually distribute ability across more categories, let's say zero, one, two, three, four, maybe up to as high as eight categories.

So this is actually a great thing for us. In fact, what has it done for us? The ability to partial-credit score has given us higher, what we call inter-item correlations. What does that mean? It means actually, we're getting better correlations with our NGN items to the final score of that candidate than our current NCLEX items are giving us.

So really, probably a very positive thing for us to do, and I'm glad we got there. I want to tell you, the other thing that we're able to do is, even with this scoring, we've been able to maintain the 95% decision accuracy that we've required for the NCLEX, our correlations and reliabilities are staying essentially the same.

So we're gaining a significant amount or, well, we're gaining a certain amount of inter-rater, inter-item

They had to pick three. And this has worked out really well for us too. The third type is where we're using tokens and different things of that. The candidate then gets an all or nothing or a cloze. So think about that cloze it

CAT, nothing changes for the candidate in that regard. So the actual examination experience that has been the hallmark of NCLEX since it went to CAT will continue to be the same thing.

What will we see that's a little bit different? So the minimum-length exam, the candidate with a very low or very high ability, remember, that's where the exam shuts off at the least amount of items. What will that entail? Well, that will entail in a minimum-length exam, the candidate will get three scored case studies. Remember, I already described the case studies.

Those are going to be 6 items, thus, a total of 18 items that are tied together following a client care plan. The other one is that they will get 52 scored-knowledge items. So you can do some quick math here. That means the total minimum-length exam on the NGN will be 70 score items and 15 unscored item. Now, that's what we do today in the unscored items so that's no change.

You'll see a little bit of a change in the scored items. We use 60 today, so there'll be 10 additional items when we add the NGN items. So the minimum number of items will go from 60 to 70. What is the maximum length? That means the total number in time that an individual can sit for the exam. And this always happens for individuals where their ability estimate, that we're measuring at this point in time, as they go through the exam is too close to their CAT score for us to have reliability meaning there's a little more error around it, and we need to give them more questions.

So what are they going to get? Just like minimum length, they will get 3 scored case studies, another 18 items. So they won't get additional 18 item, they'll get the same 3 items in terms of distribution that the minimum links will get. They will get 117 other scored items.

Here's where things change. So they'll get more other scored items. Most of those will be knowledge items. So remember, up top there was 52, now there's going to be 117. Most of that 117 will be knowledge items, but approximately 10% of those items will be the clinical-judgment, standalone items, that bow tie item that I was showing you earlier, and there'll be about 10% of those.

So what does that mean in total? That the maximum-length exam will be 135 scored items and 15 unscored items for a total of 150 items. And that candidate will have five hours on a standard exam to

So I wanted to give this to you first, but I thought it'd be nice if I provided a comparative chart. So let's walk through this. The time allowed today for the NCLEX is five hours. The time allowed, minimum time and maximum time for the exam is five hours. So it's five hours, no matter what.

Case studies, current NCLEX doesn't have any. The case studies in the minimum-length exam will be three, and then the maximum-length exam will be three. The clinical-judgment standalones, there are none today in the NCLEX, in the minimum exam, there will be none and in a maximum exam, there's going to be approximately seven. I said 10%, that's about where you would end up on that.

So knowledge items, on the NCLEX today, there are 60 to 130, because that's all there are today. On the new exam, for a minimum-length exam, there would be 52 knowledge items and for a maximum-length exam, some are around 110.

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Because remember, about seven of those would be bow tie items. So total scored items today on the NCLEX is 60 to 130 on what it will be in the future is 70. You can see that on a minimum length. That's

from 130 to 135.

Unscored items don't change and the CAT doesn't change either. So I did put some asterisks to say something about this and that is that items within case studies are static, they're not adaptive. So remember, there's always six items in a case study. And in that case study, those are static, meaning that you pick the case study and it doesn't change.

The items within that case study don't adapt, they stay exactly the same. So I wanted to make sure I was clear on that, those are not adaptive, the case study is static once it is picked. So then what is beta testing look like and what does it mean? So I want to tell you, beta testing, I want to define what we define as beta testing here. And beta testing is what we call end-to-end testing of all elements of the NGN prior to launch.

So lot of times when you do beta testing in psychometrics, you're just testing, do the items work. For us, beta testing is much bigger than that. So it's the registration and scheduling, it's the test publication, it's launching the exam, administering the exam, then it is actually looking at the function of the items and the cases.

It's the algorithm, does it work, does the stopping rules work, the pass-fail decisions, and the data, and reports both internally for the council and externally for the regulators. That follows basically the alpha test. That means that we've built all o
now alpha testing each of those as they are built and are completed to make sure that they individually work, and then we have to put them all together.

So I want to talk about the beta testing, how we think that's going to work. We think that it should be two phases, and we're calling the first one "Friends and Family." We think that that one will start around April of 2022, and it will work in a way that is sort of high level in this regard.

We, the NCSBN, are going to select the participants in this, and they will include regulatory board staff and some other stakeholders but no students are candidates. And we're going to administer this actually at the PPC similar to the way member board reviews occur. The point of this is that you, if you participate in this, would actually review a maximum-length exam.

You'll get to see how those exams questions flow, how case studies flow, how the screens look, the test centers, how that operates. So it's basically friends and family, you're going to have an opportunity and probably a requirement to provide us responses to some set questions. We want to know about your experiences, you went through there to provide any concerns or enhancements that we might be able to make.

That's what we're going to call "Friends and Family." Now, the other one I'm going to call "Live" beta test. Live beta test means exactly what it means and that is that we're going to actually test real nursing students who are expecting to graduate after April of 2023. We're going to start this in December of '22, and we're going to get these individuals to actually take a fully functioning exam that we will run all of