Turning Educational Ideas into Scholarship

Intro

Amanda Garza: Welcome to CLIMEcast I'm Amanda Garza, the CLIME program manager. In today's episode, we're excited to bring you a conversation between CLIME Associate Director Kate Mulligan and Dr. Grace Huang on the topic of educational scholarship, how to turn teaching ideas into meaningful scholarly work.

Before we dive in, here's a bit about our guest. Dr. Grace Huang is the dean for faculty affairs and professor of medicine at Harvard Medical School. She served for eight years as the editor in chief of MedEdPORTAL, an online open access journal of the Association of American Medical Colleges, and was also a member of the editorial board of Academic Medicine. At Beth Israel Deaconess Medical Center, Dr. Huang previously served as vice chair for Career Development and Mentorship in the Department of Medicine. She was a director of Academic Careers and Faculty Development, and co-director of the BIDMC Academy, and director of the Rapkin Fellowship in Medical Education.

In this episode, she shares her own journey into medical education, insights on getting started in educational scholarship, and reflections on new and traditional ways to disseminate scholarly work. We hope you enjoy this conversation.

Kate Mulligan: Well welcome. I'm delighted to have Dr. Grace Huang as our guest today. Dr. Huang is the Dean for Faculty Affairs and Professor of Medicine at Harvard Medical School, and in addition to decades in many aspects of faculty development, she served for eight years as the editor-in-chief of MedEdPORTAL, which is an online open access journal of the Association of American Medical Colleges, and she was also on the editorial board of Academic Medicine.

Now Grace has been a champion for medical education as a researcher, editor, mentor, and thought leader in health sciences education. And her work is absolutely inspirational. And we at CLIME, we're lucky enough to hear from her at our annual symposium. Now we have an opportunity to have a less formal interaction with Grace about getting started in the scholarship of teaching and learning medical education. Perhaps, we could title it something like Turning Educational Ideas into Scholarship. But before we do that, Grace, welcome. I'd love for you to share a little bit about your journey to your current position, and give us a sense of why you're so passionate about medical education and educational scholarship.

Grace Huang: First of all, Kate, thank you so much for giving me this opportunity to talk about the things that I'm really passionate about. Okay. So the first part about how I got to where I am in medical education, I think like a lot of people, my story is a little bit topsy-turvy—it isn't linear. I had wanted to be a doctor since I was five and then an oncologist since I was 16, and then I basically fell in love with medical education instead.

So that's sort of the highlight of the story. But when I look back, I think teaching and learning was really an undercurrent in everything that I did. You know, tutoring in high school and being a TA in bio lab in college. When I was in residency, I was in charge of the house staff manual and really just in general, really focused on how I present information.

Really loving those aha moments that you would see learners sort of when they get what you're trying to say. I think for me, the pivotal moment was I had a career crisis after residency when I did not want to step on that moving sidewalk towards a career in hematology oncology. So I floundered a bit.

I ended up melding this, like I mentioned, an undercurrent interest in education plus being a technophile and then melded that together and ended up doing educational technology, computer-based simulation. And the short and the long of it is, I started out in undergraduate medical education, transitioned to residency education, and then kind of accidentally into faculty development, mainly because people had these roles that they were vacating to go on to do bigger and better things, and I ended up just, “Hey Grace, you're sort of in medical education writ large. Why don't you do faculty development?” After all those years, it turned out that my love was in faculty development.

Kate Mulligan: It's lovely to hear you say that, Grace, because I feel like so many of us think that we have a nonlinear path and we think we're alone in that. But it's a common theme with a lot of people I know. You start with the love of teaching and learning and then somehow you end up in the right place at the right time.

Grace Huang: Yeah, absolutely. I think if there's one thing I would add that is generalizable, whether you're in medical education or not, what I learned from those decades of wandering is that following your instincts is really useful. Even if that instinct is, “Don't go there.” Even if you don't know which way you should go. And sometimes you're lucky to find it right off the bat, and other times it takes years. But then when you get there, you absolutely know that that's where you need to be.

Kate Mulligan: Great, thank you. That was lovely. Is there anything else you want to add or are you ready to launch in?

Grace Huang: I think just exactly what you said—that I don't know anybody who's had a linear path to leadership or where their current field is, and I think you just have to be willing to wind around a bit and to be patient and to sort of wait for those eureka moments that you've really found what you want to do.

Kate Mulligan: Great, eureka moments. That's what we're all about. Okay, thank you. Okay, so let's jump in. I think a good place to start might be to define what we're talking about when we use the term educational scholarship or the scholarship of teaching and learning. Would you like to share your take on that?

Grace Huang: Sure, and I also recognize that I may not have everybody's same exact definition. Let me start with Grace's version of it. I think of educational scholarship as a very broad umbrella term that includes both traditional forms of scholarship, such as peer-reviewed publications of the research bend, all the way to editorials, podcasts, infographics, et cetera. So I have a very, very broad definition of what scholarship means in that realm of educational scholarship.

There is a pretty specified definition, the scholarship of teaching and learning as defined by Ernest Boyer. And very simplified, it would really mean an investigation—so some kind of systematic investigation into the process of teaching and learning, plus something that is peer reviewed. Those two ingredients together then make up the scholarship of teaching and learning. As I've been in this community for a while, I think that people will define SOTL, as they sometimes shorthand it, as closer to educational research.

Kate Mulligan: Okay.

Grace Huang: So just recognizing that there are terms that have overlapped and some people use them interchangeably. This is just my view of the world.

Kate Mulligan: That's what we're here for. We love your view—that's why we got you here. Thank you. Okay, great. So I might just use educational scholarship as the umbrella term and we'll take it from there. I think it's fair to say that educational scholarship is not highly prized in many academic institutions, and we won't name any names. And the way I've heard you put it is that very formally was professional identity formation for clinicians disincentivizes education. And I think that's true for some portion of our audience who are the biomedical researchers who also end up teaching in medical and health professions education—they're not incentivized to do teaching or educational scholarship.

I'm sort of hoping that we might be able to discuss some ideas for embracing educational scholarship and getting published, perhaps uncovering some low hanging fruit for people who may be new to an institution, find educational scholarship intriguing or fascinating, and they want to contribute but may not be quite ready for, you know, doing a master's in medical education or anything like that, or doing full-blown, formal educational research projects, and who obviously will not likely have dedicated time to do PhD-level educational research. So does that sound like something you'd like to help us with?

Grace Huang: Sure. I think, Kate, you caught me in one of my more cynical soundbites in this symposium. Yeah. So I did say professional identity formation for clinicians disincentivizes education. Do you mind if I go there for a second?

Kate Mulligan: Sure.

Grace Huang: I think calling out some of the barriers is useful in terms of confronting them. When I said that, I meant around the fact that our academic medical centers and our medical schools, for a large part, are really driven by the clinical mission, because that's what makes money. I think about your "frontline clinical faculty member" who is dealing with the fact that expectations are all

defined by their clinical chief or their chair, who is in charge of a clinical enterprise. The journals they are familiar with are clinical. What drives them day to day is clinical productivity, clinical expertise, clinical innovation.

And sometimes what this means is when you are an educator wanting to become professionalized as an educator, so a teacher wanting to become professionalized as an educator, you can feel kind of alone because med ed doesn't make money. There aren't enough grants, nobody has heard of the journals. So that is really what I meant around the clinical mission really skewing the path for educators.

So on the flip side, because I did feel like that little fish swimming upstream when all the salmon were going in the other direction, I come back to what I'm passionate about. And so when I think about my love for teaching and in med ed, that narrow pathway to advancement through educational scholarship becomes worth it. I think about publishing as a form of organizing knowledge, just like teaching is. I think about learning to be an author sort of the same as an extension of learning how to be a better teacher.

And you know, we're talking about scholarship, but I've always thought about scholarship and dissemination as two sides of the same coin, just as teaching is a desire to make impact on the learners in front of you—scholarship and dissemination is about impact outside of the classroom to make a difference in the world.

Kate Mulligan: I love that. I had to interrupt, but yeah. I hadn't thought about the fact that that's what drives research as well and dissemination. And I love the idea of it being just an expanded classroom almost in some ways. So, yep. Thank you for that.

Grace Huang: A thought that came through my head—I find that it's really hard to dissuade someone who's passionate about teaching not to do something that involves more teaching or more dissemination of their work. It's so ingrained in them. I can't speak to that for clinicians, because certainly a lot of people enter medicine because they have such a passion for patient care.

So Kate, sometimes it surprises people when I tell them that my first publication, my first entry into the peer-reviewed scholarship realm was actually a poem that I wrote as a third-year medical student. I was struggling with a lot of complicated feelings about what it meant to take care of cancer patients when I had such an inability to make a change or have control. And I could have kept that all to myself, but instead I expressed that as a poem, which was peer reviewed and won some literary contest. Just so you know, I didn't do poetry—I never went back to that world. But I think ultimately it came down to sharing what really mattered to me, being worth sharing with others, and that's really at the heart of scholarship, I believe.

Kate Mulligan: That's lovely. That's a beautiful encapsulation. Thank you. Okay, so for the totally naive faculty member, what is your advice for getting started in educational scholarship?

Grace Huang: Just getting started—that has been such a big part of my journey, mainly because I don't have a master's and I took a one-year fellowship, but I just don't feel like someone who got all

that intense training as an educator. So I kind of wandered around and got it in bits and pieces. When I look back and I think about how high the bar I held for myself, I could have done it much more easily.

So I think now about educational scholarship as this inclusive sort of transcendent exercise of basically taking an idea and figuring out, for instance, how do I express it? I can express it through editorials in any journal—every single journal has an opinion area where I might take my idea, figure out an articulation of the problem that feels novel, come up with some framework that feels like just a new way to advance the field, and then end with a call to action. So there's a formula for expressing my idea.

Or I could take an idea and decide that I want to innovate on it. One piece about educational scholarship is this paradigm that innovation is highly valued because the goal isn't to have such a high burden of proof that you won't harm a patient, but instead: how do you take an idea, pilot it, do a proof of concept, scale it, share it? So innovation reports, for instance, are just part and parcel of educational scholarship. They're really, I think of as the bread and butter where you really show off the innovation that you brought to a particular topic or a pedagogical approach, or to a new learner audience.

You can take your ideas and you can narrate them. Some people think a lot about narrative pieces, all about clinical care. I replace the patient with a learner, and you also have a treasure trove of experiences that you can share about when teaching is really hard or when working with struggling learners is really fulfilling. So that's something also not to forget about as well.

You can teach your ideas. You and I have exchanged thoughts about these toolbox practical guides where you take your own expertise, having been honed by a lot of experience. Even if you're not the world expert, you can put it all together into a "12 tips" article or a practical guide to teaching in a particular way. So those are just some of the examples where the low hanging fruit is starting with your idea and just figuring out how it should manifest in the literature in all these different manuscript types.

Kate Mulligan: Great. It feels to me like you might have lost an opportunity there to make some sort of mnemonic, you know, because it's like expressing it, innovating it, teaching it, narrating it, sharing it, summarizing it, those sorts of things. And we won't take time now to make you a mnemonic, but that's definitely going to be something to think about. Thank you. That's fantastic. So there's quite a wide spectrum there that you've outlined that I don't think many junior faculty would be aware of.

I wanted to start with something that I think you covered, which is every faculty member has to start teaching usually. And it's been my experience that a lot of teachers start off doing what was done to them, and then you sort of eventually try and find better ways and, you know, trial and error plus absorbing other people's wisdom. But eventually you come up with something that you think is solid, hopefully. And then it'd be lovely to work out what you can do to share that in the ways that you've been talking about. And I think MedEdPORTAL might be a good place to think about. Would

you like to tell us a little bit about MedEdPORTAL and its history and what exactly it's supposed to help with?

Grace Huang: Happy to share that. Kate, you used the right word there, which is “share.” MedEdPORTAL is a great example of taking an idea and sharing it. It's a journal just like any other peer review journal, but its unique aspect is that it has a manuscript that describes what you did and how you evaluated it, but then it provides all the tools that you need to actually run it.

One of the problems that we run into as educators is we might have a great idea or a topic we really want to teach, but then we'd have to start from scratch. When you don't feel like that's your expertise, it feels really hard to be creating the wheel, looking at the literature, putting it together when you don't have local expertise. So the initial premise of MedEdPORTAL is: how do we get stuff out to educators, make sure that they're high quality by peer reviewing them. And then once you add the peer review aspect to it, this hearkens back to our definition of scholarship of teaching and learning. You suddenly now have a venue where educators can actually publish the stuff they're doing locally, even though it's not research.

And so MedEdPORTAL is a program, a journal that's sponsored by the Association of American Medical Colleges. It is Medline indexed, so for institutions and department chairs who care a lot about indexing, it's in there. And then it's freely open access, no publication fee, and the AAMC sees it as a service to its constituency, not just locally, but around the world. And it's also an avenue in which educators can publish their local innovations in a way that allows them to share their materials and have others modify it. And they can get credit and gain reputation, open up collaborations as a result. And the authors keep the copyright to the material.

Kate Mulligan: Right, that's a really good point. A lot of journals, traditional journals so to speak, when you write a journal article and it gets accepted, you have to sort of sign over your rights to it. In fact, if you borrow your own words for another publication, that's really self-plagiarism.

Grace Huang: For MedEdPORTAL, authors retain copyright and it's through a Creative Commons license that they're allowed to freely share with attribution so that anybody else can use it.

Kate Mulligan: Thank you. Yeah, I haven't visited it for a while, I have to confess, but I went to it over the weekend and just as a basic scientist teaching medical students, I went through a difficult period of trying to work out how to frame the topics that I know well for my medical students as opposed to graduate students. And the whole clinical relevance was hugely daunting to start with. I had great colleagues, so it all ended up fine, but I loved the way that I could just go into MedEdPORTAL and put in “autonomic nervous system,” and then there were all of these resources there with the case study and the explanation of the case study and the questions and the answers. And it was like, oh, this is such a treasure.

There were beautiful spinal cord tracts, you know, with questions and answers, and you just download the slides and start with it. And I have to say, I think my junior colleagues now would probably go straight to AI and do that, but—and that's okay—but having something that's been peer

reviewed just seems to be that much more of a comfort when you're starting off, at least it would be for me.

I do find a number of junior colleagues who get all excited about teaching. They do something that they think is new and innovative and it's like, well, what do you do now? And I think being able to say, “Try MedEdPORTAL” as a place to disseminate your work and have other people share the great ideas so we're not reinventing the wheel over and over again. It's just a brilliant service from the AAMC, so thank you for your work being the editor in chief for that. That must have been a lot of work.

Grace Huang: That was my favorite job and part of it is specific to the fact that I had a window into seeing people's passions played out on paper, in their materials, in a way that was such a privilege. That is just different than peer reviewing a sort of “traditional” manuscript. We accepted videos and cases and simulation scenarios and standardized patients. And in it, you see the stories, you see the work.

Yes, of course editorial practice is very heavy and it's high stakes because you are talking about rejecting or accepting work. But I saw my job as trying to make people better scholars. So my approach to the journal was: no matter what the decision, my role is to feed this person some insights into what it takes to get published, what's meaningful, what does scholarship mean, how could somebody become a better writer or better educator through the process.

Kate Mulligan: Lovely. I do just want to clarify with you—there is biomedical science content, there's clinical practice, there's simulations, other healthcare professions. Are they sort of represented in there as well, would you say?

Grace Huang: Great question. We have a lot of interprofessional education featured there, which is great because that's also an area that can be tricky to figure out how to knit together the work and content and perspectives of different interprofessional learners. That said, MedEdPORTAL does not publish health professions education that is strictly only in one particular health profession. Part of that is because it's the AAMC that publishes MedEdPORTAL. So that is a little bit of the reason why it has medical education as its centerpiece, and then IPE as part of the publications we have.

Kate Mulligan: I see. Well, thanks for clarifying that. I'm wondering if we can go back and talk a little bit more about what you might think of as non-traditional ways of disseminating scholarly work or work that's important—you know, the message that's important to you. Could you help us understand some of those?

Grace Huang: Yeah, happy to. I mean, I think I probably labeled this the category of digital scholarship. Is that fair to say?

Kate Mulligan: Yeah.

Grace Huang: So in the category of digital scholarship, which is I think really that leading edge of how one can disseminate work and ideas, I would put podcasts like we're in right now, infographics. It's been wonderful to see journals really embrace the use of visual media and it goes beyond visual

abstracts, like real infographics such as Academic Medicine's “Last Page.” Certainly social media. And again, that goes beyond the fact that if you post a publication in social media, that'll get more citations. I'm talking about sharing tutorials—like tutorials on social media, LinkedIn posts, blogs have definitely been around for a long time, and videos.

So certainly we understand now that videos, short videos, are really a way that many people get information. What's wonderful is that MedEdPORTAL allows all of that content to be peer reviewed as part of educational scholarship, but it can also stand on its own as a form of disseminating ideas.

I think what's been really exciting—and you're talking to somebody who has really been slow to social media—is that it's been an area where it can amplify my reputation. Certainly I've been invited to give talks simply because I had posted something, and those things are important for promotion. But I think it's also been an avenue for my voice in ways that maybe peer-reviewed original research isn't the most apt way to share some of the work or the things that I believe in.

Kate Mulligan: Thank you. That's great. Just as you were speaking, I was remembering that I have some colleagues in IAMSE, the International Association of Medical Science Educators, who I think have developed just-in-time apps for medical education that send off sound bites. And you can write for some of those apps as well, which is a really nice collaborative opportunity for scholarship. So thank you.

So I think you've done a good job of helping lower the psychological barrier to trying to do scholarly work around one's teaching in medical education and health sciences professions. Let's say we have a teacher-track faculty member who self-identifies and is motivated to fully embrace their educator and scholar identity. What would you recommend in terms of professional development for that person? So we're stepping onto a slightly different track here, but I know you have a lot of experience with this.

Grace Huang: A great question, Kate, and this is really around what I mentioned earlier: being very intentional about one's professional identity formation as an educator, as an educational scholar as well. Luckily compared to what I went through, there are so many different opportunities now to really get much better and to grow concrete skills.

Where to begin? Faculty development. There are programs that are very specifically geared to faculty development for educational scholarship. That's one area that I would look into. I actually published a scoping review with some colleagues to give a landscape of what that looks like. And if there's one takeaway I had from that, I was just amazed at all the different areas in which there are programs, not just in the department or institutional level, but including in the organizational level, where you can learn about educational theory and methods and analyses, et cetera.

Literature—I like to build into every talk the importance of understanding the literature. This means keeping up with what is in some of our more common medical education journals. Just scan the titles in the table of contents, have that content pushed to you, look on social media for links to up-and-coming articles recommended for you when you use bibliometric software. You can go deep.

So it may be a couple of seminars in professional development or faculty development, but there are master's programs, there are online programs, certainly the AAMC has certificate programs that help you learn about the basics of educational research and alongside of that, what it means to do educational scholarship, how to publish, et cetera.

And then I have mentioned editorial practice as a big part of my career. I couldn't overstate the value that peer review had in my own career. Well before I was publishing on my own, I was a peer reviewer and I learned to look at other people's raw work and understand—oh, what were they after? How could they have written this better? What is that theory they just referenced? It really became a substrate for learning for me. And when I took it seriously, it was almost like I took a class essentially in learning about generalizability theory or these kinds of statistical analyses.

I also find that peer review allows you to have a window into how the literature is evolving in your particular area of expertise, and it gives you a window into editorial thresholds for certain journals, which helps you as you think about pitching your own work for particular journals. And then it's an avenue for career opportunities. I started out as a peer reviewer, became an associate editor, was on an editorial board and then editor-in-chief. You don't need to walk that entire pathway if you don't want to, but even pieces of it can really augment your skills and reputation in a way that is very valuable for your own academic advancement.

Kate Mulligan: Thank you. That was very comprehensive. I love the idea of the peer review. I have to say a personal link for me for that is we have a small grants program here at CLIME for University of Washington, and I get to be on the review committee for those grants. And it was a really big learning opportunity, honestly. Because we got a variety of applications from all sorts of different corners of the university—simulation, basic science, collaborations with overseas programs, all sorts of things. But the peer review part is really interesting.

Now I feel like I understand that many institutions have their own in-house thing, and of course CLIME is designed to try and help the University of Washington faculty with these sorts of professional development opportunities. So we have a teaching scholars program—I think they're pretty common across the states. And we have a clinical education certificate that we started, but I'd love to get a link to your scoping review and we'll put that in the episode notes for the show and anything else that you recommend we can put in there too. So thank you for that.

And you're right, it seems like a lot of my colleagues here at UW have been doing PhDs, part-time PhDs through the University of Maastricht, I think in the Netherlands, and other places. And I've seen several Harvard offerings, which usually are a little bit beyond my price range, but depends where your priorities are, right? So thank you so much for that.

Grace Huang: Actually, Kate, what you've shared really brings up the importance of the institutional context because you've been talking about infrastructure that the University of Washington has provided that absolutely fosters that growth. You've mentioned seed grants. Even the act of writing a grant, even if you don't get it, forces you to think about how to consolidate your ideas and your

methodology in a way that other people can understand. And then, of course, there's a skill about grantsmanship.

Already you offer a panel of different offerings from more survey-type coursework to very deep work, and that allows people to figure out how to titrate the amount of professional development that they get. So I can't overstate how important it is to have that kind of infrastructure that you're talking about. That's really a privilege for your faculty to have those opportunities.

Kate Mulligan: Yeah. Thank you. We also have works in progress meetings, which I may as well plug here too. And that's one of those opportunities where anybody can come and ask any kind of potentially silly question about research because everyone's there to help each other. And I think that's a really good opportunity as well.

Grace Huang: Oh, I love that.

Kate Mulligan: Talk about low hanging fruit.

Grace Huang: Yeah, exactly.

Kate Mulligan: Thank you. I have one last question that we might have covered already, and that was: could you share a bit more about what it takes to be serious about educational scholarship? Perhaps touching on formal educational research and the steps involved in that?

Grace Huang: Yeah, good question. And recognize that so much of my work has not been educational research. It's really sort of leaned into that broad expansive definition of educational scholarship. Educational research does not have to be the purview of PhD educators, but it certainly is much easier when you have that PhD in education or very research-oriented degrees.

I've learned it sort of the scrappy way, learning bits and pieces, reading online, reading books, going through courses and so forth. There is a science underlying education that is sometimes forgotten and can be deprioritized because it feels like, oh, everybody can teach because it's an expectation of a faculty member. But there is real evidence that undergirds why we do certain things—why active learning favors retention, how we present information in a way that really sets up deep understanding, the whole field of cognitive psychology and learning and all of these educational theories. There's so much to be uncovered around this.

What I've learned in doing some of my educational research projects is how hard it can be—how hard it is to create a randomized control trial or to control for the kind of variables I don't feel like I have control over. But we are lucky that we are in an era where there are serious methodologies for doing this. You will have to find the resources, the people, the expertise, the librarians to help you get there because it is hard if you do not feel like a card-carrying educational researcher. This type of rigorous, methodologically serious educational research is really what advances the field in ways that are so different from where I was 10, 20 years ago. So I feel like such a lucky beneficiary of that research and it has to be done. It could be done by many of us and it could be done by groups of us. But here's a plug for why it's important and why it's important to do it yourself.

Kate Mulligan: Okay, great. Thank you so much. At the symposium we met our latest recruit to CLIME, Justin Bullock, who will be taking care of serious educational research.

Grace Huang: Yes, yes, yes.

Kate Mulligan: So that's lovely. Thank you so much, Grace. It's been wonderful to have you share your wisdom with us, and I know many, many people will be really excited to hear what you've said and to follow up on all of the beautiful gems that you've thrown in front of us. The pearls of wisdom—isn't that the traditional cliché? But thank you. I really, really appreciated it.

Grace Huang: Thank you so much, Kate. It was such a pleasure to talk to you about this.

Outro

Amanda Garza: That brings us to the end of today's episode. A huge thank you to Dr. Grace Huang for sharing her journey and insights into educational scholarship, and to Kate Mulligan for leading such a thoughtful conversation. If you'd like to explore more on this topic, check out the episode notes for resources and links.

As always, we invite you to connect with CLIME to continue the conversation and explore ways to advance teaching and learning in medicine. Thanks for listening and we hope you join us for the next episode.