Undergraduate Research and Implications for Life Development

Nolan Schultheis (00:08):

Welcome to Making College Worth It, the show that examines engaged learning activities that increase the value of college experiences.

Jessie Moore (00:15):

In each episode, we show research from Elon University's Center for Engaged Learning and our international network of scholars. We explored engaged learning activities that recent college graduates associate with their financial and time commitment to college being worthwhile.

Nolan Schultheis (00:30):

I'm Nolan Schultheis, a second-year student at Elon University, studying psychology with an interest in law. I'm the Center for Engaged Learnings Podcast producer and a legal profession scholar.

Jessie Moore (00:41):

And I'm Jesse Moore, director of Elon's Center for Engaged Learning and a professor of Professional Writing and Rhetoric.

Nolan Schultheis (00:47):

In this episode, we'll explore a new book on undergraduate research. We'll talk to Kristine Johnson and associate professor of English and University Rhetoric Director at Calvin University in Grand Rapids, Michigan, and Michael Rifenburg, a professor of English at the University of North Georgia, who also serves as senior faculty fellow for scholarly writing with NG's Center for Teaching Learning and Leadership

Jessie Moore (01:12):

In the Center's 2024 National Survey of Recent US College Graduates, approximately 43% have completed undergraduate research projects during college with most of those experiences embedded in a course 31% reported participating in a mentored undergraduate research experience. Scholars already have demonstrated the significant role that a mentored undergraduate research experience can have on student success during college, including positive gains for retention and graduation rates. In their new book, A Long View of Undergraduate Research, Dr. Johnson and Dr. Rifenburg explored alumni perspectives on how undergraduate research shaped their inquiry habits, their sense of belonging and their vocations. Let's hear from our guests.

Kristine Johnson (02:01):

I'm Kristine Johnson. I'm an English professor at Calvin University in Grand Rapids, Michigan, and I am an undergraduate research alum. So I did undergraduate research from 2003 to 2004 and I mentor those researchers now. And so in some ways Michael and I are looking back on our own experience as researchers.

J. Michael Rifenburg (02:26):

Yep. My name is Michael Rifenburg. I have the opportunity to teach at the University of North Georgia. I'm a professor of English there at the University of North Georgia, and as Kristine said, I too was

Undergraduate Research and Implications for Life Development

involved in under writer research long time ago and for the past 20 or so years, that experience has always stuck with me. And I always wondering what was that thing that drew me to it? What was that thing that helps me keep thinking about it 20 years down the road and I'm also teaching at a school or undergrad research is all around. And so it was an interest of why does it still stick with me? Why do I still look back on it positively? But also getting a sense that it's always something that's in process that we higher ed is still figuring out. Maybe we won't ever, what is working really well? What's not working well? And then why do we keep coming back to this thing that's called undergrad research? And so it's just opportunity for me to mine through some work I did a long time ago, but also think through why am I still drawn to it? Why is my university still drawn to it? Why are we still talking about this undergrad research? How can we do it better?

Jessie Moore (03:34):

And so you have a fantastic new book coming out, A Long View of Undergraduate Research: Alumni Perspectives on Inquiry, belonging and Vocation, which we'll link to in the show notes. Could you share a brief preview of the book's focus?

Kristine Johnson (03:49):

So our main project in this book was to talk with undergraduate research alumni. Most of them were about five years out of college, which means they were close enough to the experience to remember some of the details but far enough away that they're out of college and have gotten jobs or entered graduate school. And we asked them pretty open-ended questions about what the experience was like and then how that experience resonates for them today. And there are sort of three major themes in the book. One is the research experience itself. That's the inquiry part of the title. What's it like to do this work intellectually and emotionally? The second theme is belonging. So what was it like to have a mentor? What did this mean for their lives in college socially and academically? And the final theme is this vocational piece. Now that they're in the workforce or in graduate school, how do these experiences transfer if they do? And in what way might they,

J. Michael Rifenburg (04:53):

This is three plus years of us kind of figuring this out together, essentially doing research and under research five years, Kristine is telling me five years. And then to come to the point where you kind of encapsulate, hey, this is what this thing was about. That's kind of the beauty of research. I enjoy coming to that in my own research. I enjoy hearing students come to that, working on something for a long time and then encapsulating it into a couple sentences. This is what the thing is that I did.

Kristine Johnson (05:19):

And I think, I don't know, I've maybe joked that as far as academic books go, it's kind of a feel good read. There are certainly things to be critical of and I think we are critical of those things. But a lot of what we learned was that these experiences are good and meaningful for a lot of students.

Jessie Moore (05:41):

And I will say that I've had a chance to preview it because it's published in the Series on Engaged Learning and Teaching, which the Center for Engaged Learning co-publishes with Rutledge. So as a series editor, I got a preview. It is an absolutely fabulous book and I like that feel good descriptor, but you also

Undergraduate Research and Implications for Life Development

raise great points for higher ed to think about as we try to make these experiences even more high quality and impactful for students. So I'm eager for others to have access to it as well.

Nolan Schultheis (06:15):

So the last question actually kind of ties in well to what I have to ask, and that's based on what you learned from your alumni interviews. How does undergraduate research contribute to self-actualization

J. Michael Rifenburg (06:27):

Play the quick academic game? It kind of depends on what we mean by self-actualization there. So how I understand the term as we're having this conversation right now is how does it strengthen a sense of identity? And one thing we learned that I thought really resonated with me is how important relationships are for undergrad or researchers. And that's not new. We draw from that wonderful book Relationship Rich Higher Education. And so we're looking at how relationships are really meaningful for students. And we've already know this about first year experiences where living on campus, being in a learning community, doing a common read, how these form important relationships. We also found with undergrad research how important things like having ice cream with your professor is that when we're talking to people, tell us about your undergrad research you did seven years ago, their memories don't go to, here's my thesis statement, here's how I did MLA format, right? (07:20):

It's dude, it was really cool to have ice cream with my professor and talk about the book or that was the very first time I ever stayed in a hotel room when we went to a conference, a chance to talk about my research and other people were there, they wanted to hear about my research. And so again, going back to your question, I understand that idea of self-actualization as kind of identity formation and how that happens in community and how that can happen in unexpected ways, in ways that we, at least me speaking as a professor, don't often think about, I don't think about ice cream with this student being important. I don't think about helping them secure a hotel room for a conference as being important. I think what's important is what we do in the classroom where I teach thesis statements, but that identity formation within community as some of that really resonated with me.

Kristine Johnson (08:07):

Yeah, I think one of the things I thought a lot about through this project was the timeframe of emerging adulthood. And so most of the people we interviewed, so emerging adulthood could be roughly defined as sort of age 19 to close to 30. So the people we interviewed were emerging adults while they were researchers, but in a sense they were still emerging adults if they were 27 ish years old. And I think the big questions people tend to answer during that time revolve around who am I and what do I do? What's my purpose in this world? And I think another thing undergraduate research serves in terms of that kind of identity formation or self-actualization is figuring out what you care about and maybe what you don't care about. I think we have stories of undergraduate research introducing a student to something, an issue of social justice or even just an area of academic study that a light went off and they said, okay, this is something I'm actually going to pursue in a professional way. And they've done so in the future. I think we also have stories of students who came to college certain they wanted to do something and undergraduate research actually led them in a different direction. They said, oh, I don't want to be a lawyer after all. And it was the research experience that sort of oriented 'em down that path to who they would become as adults.

Undergraduate Research and Implications for Life Development

Nolan Schultheis (09:42):

What role do relationships built prior to the research experience have in fostering a positive undergraduate research experience?

Kristine Johnson (09:50):

So I'll take this from one angle maybe one of the things we thought about was how undergraduate research is connected with just a general sense of belonging in college. And belonging can be social, it can mean that you have friends and are a part of clubs or Greek life or orchestra, but it can also be academic belonging that you have a major and a home department and a sense of purpose that way. I think one of the things we sort of discovered when we asked students, did doing undergraduate research increase your sense of belonging in college? Some of them said yes, and I think Michael can talk about that and has talked about that. But some of them said, no, I think I already belonged before. And it was just another good experience. And so I think there is something where students who feel connected on campus and have a sense of belonging might have the courage to pursue this kind of experience. I think that's another part of it, that good relationships in college might be a springboard to participating in a practice like this.

J. Michael Rifenburg (11:04):

Two quick stories, this is a feel good book, but these are two stories that are kind of unfortunate, but I think they teach us something really, really powerful. I was surprised by a handful of alumni thinking back on how isolating these experiences were, where undergrad research for them was in the library during the summer listening to Depeche mode and just coding. And there's no memories of other people being around. It's just me and a computer and that was it. And often at some college campuses, summers can be lonely isolating times, especially if it's your first time living on campuses, especially if you're spending the bulk of your time in the library. And libraries can be quiet places anytime during the school year, unfortunately, but especially sometimes during the summer. And so that made us kind of pause because I wanted to notice, I wanted to find lots of community.

(11:57):

That was kind of my confirmation bias. I want to hear stories of people in community. I want to hear relationships. But there were times where people said that was kind of lonely and I did some cool work. I still remember it, but it was kind of lonely. One more quick story. Student named Tess was involved in undergrad research on bullying because previously she experienced some harsh bullying in school. Can't remember if that was elementary, middle or high school, but she brought those experiences with her into college. She brought those experiences with her into her psychology degree. She brought those experiences with her into her honors thesis on bullying and how those memories are kept and what those implications of those memories are. So she had this powerful honors thesis and then we had a chance to talk with her down the road. She's now working as a victim advocate for an domestic violence agency, and she goes to local middle schools, goes to local high schools and talks about dangers in relationships, especially in romantic relationships, and what are those signals and what to do about those. And she said it's particularly appropriate because a lot of high school seniors in this area, Reid Romeo and Juliet, which is full of some dangerous relationships. And so she's moving into these spaces talking about some hard issues with sometimes a challenging audience in middle schoolers and high schoolers. And she's pulling on her former identity, her former experiences that aren't positive, but they're informing her research and now they're informing her vocation in really powerful ways.

Undergraduate Research and Implications for Life Development

Nolan Schultheis (13:28):

I feel like you see all the time people say it's not a job if you enjoy what you're doing. And I think that can kind of tie into the undergraduate research as well, especially with prior relationships and maybe the professor you want to do the research with knows of you or you knew of them. And then all it takes, I feel like is one little thing to get the foot in the door. And then there's always a chance that students just going to skyrocket in their potential in terms of research and just kind of, I feel even probably academic skill, I can't imagine doing undergraduate research wouldn't polish you as a student as well, just in general.

Kristine Johnson (14:09):

Yeah. I think we have another woman we spoke to who was a sophomore in college and had taken some classes and thought, actually I think sociology is where I want to end up. She was I think majoring in religion and French, but realized I like how sociologists think. And she said she went to the department one day and talked to some different faculty and a few of 'em said, yeah, yeah, you could probably get a minor and here's the classes you need to take. And then another prof, she said he was enthusiastic about me from the start and he said, oh, you want to study sociology? Well tell me how you think. And he invited her to do a small project and that spun into a summer fellowship and that spun into an honors thesis. And that relationship grew into a multi-year research collaboration. And so I think when faculty meet students, we don't know that they will end up as our undergraduate researcher, but I think that enthusiasm and just seeing the potential in a curious student is really important.

Jessie Moore (15:19):

I also appreciate the way that that example highlights one of the salient practices of undergraduate research, mentoring and taking time for the whole student. So not always jumping straight into the project, but learning more about the student the way that they think and that can really shape how we interact with them, how we set up parameters for a project. And so it's also fun to hear that one of the professors she spoke to was thinking more holistically than just the degree requirements that she could work through. Michael, your mention of the ways that the summer experiences can be isolating, I think points to something that colleges and undergraduate research program administrators could be attentive to as we continue to look for ways to improve. I know that there are some institutions that do try to add additional programming around their summer undergraduate research experiences, but your example highlights why that's so important and why we might need to be a little bit more systematic about adding that additional layer.

Nolan Schultheis (16:35):

This topic had been kind of touched on a little bit, but I think it'd be interesting to hear a full in-depth kind of analysis of it. And that's what benefits does undergraduate research provide that other high impact educational practices can such as study abroad or a basic internship?

Kristine Johnson (16:55):

I think one of the themes we heard in our answers was that whatever undergraduate research project it was, if it was an honors thesis or a summer project or collaborating with a professor on a students as partners project, the alumni said, this is the biggest thing I've ever done, right? It's the longest paper I've ever written. It's the most data I've ever collected. It involved the most analysis. And I think there is

Undergraduate Research and Implications for Life Development

something about the scale of undergraduate research projects that isn't typically matched in the traditional curriculum and is probably not matched in other high impact practices because that's not the point of those practices. So I think the learning gains in terms of the raw skills and the writing and the speaking that come from doing something really big are a distinctive here.

J. Michael Rifenburg (17:52):

So I play a lot of board games, absolutely love board games, and I think often the metaphors, so I'm going to give you a board game metaphor as a way to make sense of this. Awesome question. A lot of high impact practices, I'll specifically speak of the ones you mentioned, Nolan, of study abroad, education abroad, as well as internships. Those make me think of the board game monopoly and undergrad research makes me think of Dungeons and Dragons. So we can't push that metaphor too far, right? There's no ogres coming out in undergrad research. There's no money ideally being exchanged and bought and sold with internships. But the idea where play monopoly, there's a clear beginning, there's a clear middle, there's a clear end. We know what the ultimate goal is. You're going to London for six weeks, you'll start here, you'll end here, you'll get these two courses, it'll cost this much money. (18:38):

The end, your internship will be June to July. You'll do these tasks, you'll be done the end undergrad research. We're not sure how long this will potentially take. We know a potential outcome could be an honors thesis. Maybe you'll present at a conference, maybe you'll change your mind, maybe you'll publish with me. Maybe I'll as a faculty member get another job and another university and you'll need a new advisor. We're not sure what the dungeon master has planned. Again, we don't want to push too far at that metaphor, but one beautiful thing about undergrad research is those unlimited possibilities that can be overwhelming. And if this is not done well, it can be very destructive for lots of people. But if you're open to exploring terrain, if you're open to wondering, where could I go with this? And maybe this chemical experiment I do might not yield results, so maybe I'll have to do a different one later next week. If you're open to those kind of things, then this is a really powerful high impact practice for students, for staff, for faculty. But if you're also looking for clear rules, clear beginning, clear end, this is a space that you might approach a little bit of caution. So

Nolan Schultheis (19:45):

I hadn't exactly thought about the rigidity of both of those practices and compared to an undergraduate research practice, how much more open-ended. It is coming from someone who's more so been easy to be told what to do and can follow rules as well. And I'm an instruction based person. I definitely am probably going to end up staying away from undergraduate research, and that's not a slight at anybody, but I know for me personally, I would probably end up crumpling under the amount of creative freedom I have and different pathways I could end up taking.

J. Michael Rifenburg (20:24):

Sure. That's something Kristine and I think about as we're thinking about clearing the path for undergrad research, who has the ability to freely explore a board for unlimited amount of time, and we're not sure if this will yield some benefits. We're not sure what kind of money might be involved to do this kind of work. We're not sure how much time it might take away from you if you have home care duties, elder care duties, childcare duties. And so without those rules, it makes it harder for us to provide access for students. If I can't sit down and say, Nolan, over these next year, here are the exact things you'll

Undergraduate Research and Implications for Life Development

accomplish or be asked to accomplish, here's exactly how much time and money it might take. It makes it much more challenging. And so that's where we talk about in the end of our book, how we need to clear the path and work with students to provide points of access on ramps and off ramps to make this a meaningful experience for more people.

Kristine Johnson (21:18):

And I think Nolan, I'm a pretty instruction based person myself. I just write myself the to-do list. Now, I think this comes down to mentoring too, that undergraduate research can be free flowing and openended because that's what research is. But I also think a good mentor will respond to a student's needs for orientation to say, okay, this is this field and this is the direction, and even here's what our job is this week. To push Michael's metaphor a little bit, undergraduate research does have an end and that's graduation. And so even if students continue thinking about these topics or even go to graduate school in a similar area, I think one of the things we noticed is if undergraduate research becomes stressful for students, sometimes it has to do with the fact that an undergraduate semester ends or an undergraduate career ends. And that's four years at most. And I think Michael and I started thinking about this project together five years ago, and that actually feels quick for a big research project. So there are some time constraints around the experience.

Jessie Moore (22:39):

I also want to jump in and note that despite Nolan voicing hesitation about undergraduate research as part of our podcast work, he has suggested that we interview student athletes to learn about their engaged learning experiences on campus. So that's somewhat perhaps undergraduate research light, but I would say that there is some research there. So you may find your way into a longer project there if it catches your interest.

Nolan Schultheis (23:11):

So now that we're kind of thinking in the post function of the undergraduate research experience, I have a question that kind of follows that. So what results do you think would come from a correlational study focusing on undergraduate research and position obtained?

Kristine Johnson (23:30):

I can give part of the easy answer. So I think the research is clear, especially in STEM fields, that undergraduate research experiences are going to increase the likelihood that you'll attend graduate school in these fields, graduate school or professional school. Undergraduate research as a practice in the US really started in chemistry departments at small liberal arts colleges like the one I teach at, right? Where there aren't graduate students. And so undergraduate research was almost this pre-pro professionalization that sent you on this track to graduate school. So I think that part of the answer is sort of clear. I think doing undergraduate research in the humanities will also be correlated with attending graduate school in the humanities at a rate not maybe found in the general student population. But I think what we found really interesting in our research, and this is where I'm dodging your question, is undergraduate research experience may not at all predict what kind of field you will enter. Looking back, the students can say, oh, I can see how one thing kind of led to another, but I think it's only in retrospect that they connect the dots a lot of the times.

J. Michael Rifenburg (24:57):

Undergraduate Research and Implications for Life Development

Yeah, I think Kristine's correct there. Now the challenge with that is if we sometimes can struggle to articulate undergrad research will lead to this outcome. If Nolan, if you do undergrad research in economics, you'll work for the Federal Reserve Bank in dc, right? If we're not able to directly translate your experience to vocation or career preparation, then we have trouble advocating for undergrad research, not necessarily with our students, but with other stakeholders, parents, community members, especially for me at a public university or governor or state legislators. If I'm saying, Hey, I'd love to do undergrad research with a student, we're not really sure the outcome will be, but I think it's going to be really meaningful and important. Therefore you should give me a sabbatical for I can refine my plans. That's a hard sell, literally a hard sell. And so what's exciting about our research is we're starting to find those connections. We are not suggesting college is designed for career preparation, we're valuing knowledge for knowledge itself. But if anytime we can start transferring undergrad research projects into some sort of vocational training in some sort of career preparation, I think that's meaningful for faculty, that's meaningful for staff, that's meaningful for students, that's meaningful, especially for me at a public university, for all the people that are involved in the University of North Georgia and its community impact.

Kristine Johnson (26:22):

I think in higher ed we often feel, and maybe you feel this as a student, that we're forced to choose either knowledge for knowledge sake or getting a job. And I think one of the points we try to make in the book is that in undergraduate research, you're not forced into that choice necessarily. You can do both. You can pursue for knowledge sake, and at the same time you may develop some raw skills that transfer directly to the workplace.

Nolan Schultheis (26:52):

So this question is a completely random one that just popped in my head after hearing that. Do you think when students are in the undergraduate research program and they're trying to look for knowledge just for knowledge's sake, that taking the time for maybe that fun little piece of knowledge they want to search out actually helps them kind of recenter themselves and work on the actual research potentially better?

Kristine Johnson (27:20):

And a lot of the interviews the students used the rabbit trail metaphor that doing their research, they had sort of a path they expected to go down, but there were always these little rabbit trails that they would follow. A lot of them worried that doing that was distracting or they weren't using their time well. But one of our researchers said one of the things she learned was that nothing is ever really lost. That going down that rabbit trail, even if you never used the source or you never actually pursue that idea, having gone down that trail was still important because it told you you weren't going that direction.

Jessie Moore (28:02):

I love references to rabbit trails and just the ways that they can inform our sense of identity, the way that we view our projects and the things that we find along the way that we never anticipated. It's you were speaking about the vocational aspect or ways that undergraduate research ways that we as faculty and staff might make a better claim about how undergraduate research supports career outcomes. As you were thinking about the vocational connections with undergraduate research, I always think that that's an interesting space for mentors to perhaps introduce the NACE competencies and encourage

Undergraduate Research and Implications for Life Development

students to reflect on how their research experience is supporting their development of those competencies. Not necessarily for any formal end, but as a way to help them tell their story. And one of the things that I am drawn to in your project is you are giving researchers another opportunity to tell their story and to draw the meaningful aspects for them out of that story. So that's just a fun piece of your project that I think has then ongoing benefits for the researchers who participated. I think we have two more questions for you. One is, we've touched on pieces of this, but based on what you've learned from the alumni you interviewed, what would you colleges and their faculty and staff do to improve access to high quality undergraduate research?

Kristine Johnson (29:48):

I think one part of improving access is opening our imaginations to who would make a good undergraduate researcher. One of the things many of several of our interview participants pointed out is that this little nepotistic circle, I think that was the phrase someone used would develop where a student might get one research experience and because of that, they're introduced to someone else and then they tell a friend and that friend and suddenly it's sort of a closed opportunity where people are wondering, wait, how did they do that? My home department actually just started a bold experiment, which is to have first year research fellows. So I am working with a college freshman this semester, and in our application process, we were really intentional not to ask questions that would imply you even need to know what research is. We asked them what they're curious about. We asked them really openended questions that we hoped any student could answer. And I think we tried to be imaginative and say, we don't know a lot about this 18-year-old who hasn't even started college yet, but we're going to work with 'em and we're going to try this and we're going to be good mentors. And so I think lowering those barriers in terms of even who we envision as a researcher is one step in that direction.

J. Michael Rifenburg (31:22):

What's key to me and comes through in the pages in our book is how important students' voices are. And I am continually surprised at how many big decisions are made in my local context with very little student input. If it's a five year strategic plan that's required from our accrediting body, if it's a new vision from a provost, a president, or whomever, how often those big decisions are made with very little student input. And to turn the spotlight on myself, how often I might adjust a curriculum, a project, adding a new assignment, making changes to a class up top many years, and doing that just on what does Michael feel like doing this semester with very little student input. So I feel that, and what I appreciate about the work that I had a chance to do with Kristine is how we want to improve undergrad research, and we want to do that through the student's experience and what they have told us about what is working and what's not working.

(32:23):

So they're the ones that have hiked this trail and looking back now, where were some pinch points? Where was the trail unclear? Where were there some rocks in the way, some roots in the way? Where could we put more orange blazes to help you direct your way down this path in building in structures at the beginning, in the middle, at the end, that can support access and that are there because people who walked that trail told us they need support and help there. The downside of that, we're starting to generalize. We don't want to make broad changes to undergrad research curriculum because one student found it valuable or one student did not find it valuable. So we need to be careful with that. That's why it's so important. This is one of our guiding beliefs in our books that we balance the panorama as well as the portrait, right? So big picture of undergrad research as well as individual

Undergraduate Research and Implications for Life Development

experiences, but centering student voices has to be key to any conversation we have about clearing the path, about enlarging access, inviting more people to that metaphorical table.

Kristine Johnson (33:23):

I think when we think about access too, it's easy to go to money first and money is a real issue, but I think time is also a commodity in higher ed that we need to think about. And one of the things I think both of us have discovered in our own mentoring and the scholarship supports this, our research supports this is involving undergraduate researchers in teams, right? One faculty member working with multiple students where there's mentoring both from the mentor and the students, but the students doing peer mentoring too. I think that model, it helps a time problem, which is that one-on-one mentoring is very time intensive group mentoring and peer mentoring. It is more efficient, but it's also less isolating. So it actually, it solves two problems at once, and I think that's another promising direction for access.

Jessie Moore (34:24):

I love that you highlight that as well, because that's a model that we normally associate with the sciences, but you both are faculty in humanities areas and it just highlights that that's a model that can transfer across disciplines, might require us to rethink our practices a little bit, but there's great potential there.

Kristine Johnson (34:45):

Yeah. One of the best moments of my summer actually was inviting my incoming freshman researcher to the final presentations from my summer researcher, and so they're actually going to have the opportunity to work together for a year, but of doing that handoff and then getting to meet each other, and now we're team of three. It's really cool.

Nolan Schultheis (35:09):

So last question now, what advice would you give to students who are listening to the podcast and who are interested in or currently pursuing undergraduate research?

J. Michael Rifenburg (35:19):

Yeah. An important book for us throughout this whole process was a meaningful writing project, Michelle Eodice, Anne Geller, Neal Lerner put this book together where they're interviewing students and asking what is something meaningful you wrote in college? And then working through their responses and making the big point that we are doing meaningful writing. And so that word meaningful carried has been with me and stuck with me. We brought that into the book where we were looking for people to talk about meaningful undergrad or research experiences, and so what I would communicate to students, and I'm still communicating to myself, is to go after things that are meaningful to you, spiritually meaningful, personally, meaningful, professionally, however you want to understand that word meaningful. But if they're resonating with you, if there are things that are popping in your head while you're walking the dog, while you're washing dishes, when you're browsing Netflix, where these are things that are really important to who you are and how you understand the world, those are the topics to chase after, not necessarily chase after the topic of a professor that you know is a rock star in the field and you want to work with her, not chase after the top because a professor has a

Undergraduate Research and Implications for Life Development

laboratory and is generating a lot of power for research on stars, and you want to be a part of that research team what is meaningful to you, and then surround yourself with people who can help you chase after that meaningful project that gives you some agency, but more importantly, it helps you do a project that is true to who you are and what you're passionate about, and you will see the long-term benefits of that.

Kristine Johnson (36:52):

And related to what Michael just said, I think I would suggest that college students simply ask their professors what they research. We did a lot of preparation for this project, and some of the research we read suggested that an incoming first year student on a college campus doesn't really know what research means, nor do they know that it's happening at that university. And I think the simple question of asking faculty you meet, what do you study beyond whatever you're teaching me in this class? It's a good way that you might make that personal connection, but I think it's a good way just to understand what's going on and what's out there in the world. I still have colleagues today who I learned what they research, and I'm surprised that that is a thing you can study. Right.

Jessie Moore (37:46):

Thank you both for those tips and all of your thoughtful responses during our conversation. Nolan, do you have any follow-ups you want to ask before we sign off?

Nolan Schultheis (37:56):

Not necessarily a follow up, but I do think it's interesting both points that were made because as someone who, I mean, I didn't struggle necessarily in school. I struggled to get through it in the sense of I tolerated it, but I didn't enjoy it. So I'm a big person of intentionality and purpose, especially when it comes to the education side of things. So I definitely can see and understand how that would definitely play into wanting to be more passionate about undergraduate research and then talking to the professors. I mean, my idea of a educator is normally like I would feel the same idea anybody in a high school might feel, which is there to teach you. They have their own life, you have your own life, you two don't really interact. It's a cordial relationship. There's nothing wrong with it, but I definitely think breaking down that barrier and getting to know your professor on a more personal level definitely helps the student teacher connection, especially in undergraduate research. I would say even in general, there have been teachers that I've gotten closer to over high school and I had realized that one being in their class was easier, and two, paying attention to them was very much easier.

Kristine Johnson (39:16):

We had a lot of moments in the interviews where an alum would say, oh, I had this moment where I realized that my pro is just a person too, which I think was funny for us to hear. Yeah, we are very much also just people, and so whatever that means in terms of an appropriate but close personal relationship that's meaningful.

Jessie Moore (39:45):

Well, on that note, I want to say thank you for contributing to our relationships today and really fun to hear more about your work. For our listeners, the book, a long view of Undergraduate research will be out November, 2024, so by the time you're listening to this episode, it should be available. We'll have a

Undergraduate Research and Implications for Life Development

link to it in the show notes, but it's such a wonderful project, so thank you for working on the project, sharing it with the world, and talking about it with us today.

Kristine Johnson (40:17):
Thank you, Jesse. Thanks, Nolan.

J. Michael Rifenburg (40:20):
Yep. It was a delight. Thanks for this opportunity.

Jessie Moore (40:22):
Thank you both, and we hope you have a great rest of your day.

Kristine Johnson (40:25):
Yeah, thank

Nolan Schultheis (40:26):
You. It was nice meeting you too. Thank you.

Kristine Johnson (40:28):
Yeah, you too.

Jessie Moore (40:38):

It was a fun conversation. What were some of the things that stood out to you that you think students should reflect on?

Nolan Schultheis (40:45):

The idea that while undergraduate research can be a big, large task to accomplish the scaffolding that's set up for students to be able to complete it is very much so designed so you're not stressed. I also thought it was a good point just in general, the way that you're supposed to approach undergraduate research as a student. I think the intentionality of getting to know the professor and picking what you would enjoy to research as opposed to what you think you might are two very important points that could start someone potentially on a career path. They would've never had an idea that they were capable of doing had they not gone to set undergraduate research.

Jessie Moore (41:30):

Likewise, I appreciate that reminder to think about meaningful to you and to pursue research that aligns with that meaning making as opposed to sometimes the prestige factor or the person that you think will be the person you want to work with. Relationships are important, and we heard that, but starting with the topic that's going to drive meaning in your life. I also, that relationship piece, and we heard them mention relationship rich education, but also just the ways that the relationships extend past the undergraduate experience and the ways that it involves more than just the research itself, but some of the more holistic sense of self and being that come across when you are getting ice cream with your research mentor or traveling to a conference together and building those long lasting partnerships as

Undergraduate Research and Implications for Life Development

opposed to just working on a project. I'm really excited for our listeners to learn more about their project through their book in Long View of Undergraduate Research. It's definitely a good read, as they said, kind of a feel good read, but there's a lot to learn about undergraduate research from that book, and I'm grateful that they've shared it with us.

(43:03):

Once again, I'm Jesse Moore.

Nolan Schultheis (43:06):

And I'm Nolan Schultheis. Thank you for joining us for Making College Worth It from Elon University Center for Engaged Learning.

Jessie Moore (43:12):

To learn more about strategies for mentoring high quality undergraduate research experiences, see our show notes at www.centerforengagelearning.org. Subscribe to our show wherever you listen to podcasts for more strategies on making college worth it.