

Making College “Worth It” – Season 1, Episode 6

Salient Practices of Mentoring Undergraduate Research

Nolan Schultheis (00:04):

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

Jessie Moore (00:10):

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

Nolan Schultheis (00:23):

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

Jessie Moore (00:35):

And I'm Jessie Moore, Director of Elon's Center for Engaged Learning and a Professor of Professional Writing and Rhetoric.

Nolan Schultheis (00:39):

In this episode, we'll focus on the salient practices of mentored undergraduate research, 10 practices that contribute to a high quality mentored experience for students. We'll talk to Professor Helen Walkington from Oxford Brookes University, in the United Kingdom, Professor Eric Hall, from Elon University, two teacher scholars who continue to explore how to enhance students' experiences with undergraduate research.

Jessie Moore (01:01):

In the Center for Engaged Learning's 2021 survey of recent college graduates conducted in partnership with the Elon University poll, only 32% of participants indicated that they had taken part in an independent undergraduate research project during college. Considering that undergraduate researchers experience significant gains in critical thinking, effective communication, teamwork, complex problem solving, retention and engagement, that percentage is too low. Let's hear from our panelists about strategies for improving the quality of this high impact educational experience while scaling up access.

Helen Walkington (01:38):

My name is Professor Helen Walkington. I work in the UK at Oxford Brookes University, in the center of England. About as far away from the sea as you can get. And the reason I say that is I'm a professor of geography. I've really had an interest in students as geographers initially, and now in all disciplines getting involved in research. I've run a journal specifically for geographers called, GEOverse, where students who've done an undergraduate research might be a dissertation, it might be a project, can actually publish that for a broad audience, a public audience to read. And I've seen the kind of transformation in students who've gone ahead and done research and then gone the extra mile and actually tried to share that with other people.

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And so I've run an initiative at Oxford Brookes called Get Published!, to encourage all students from all disciplines to share their work publicly. We have a face-to-face conference, some online means of sharing as well, and collection of student research, which is browsable online too.

(02:53):

And something I'll probably come back to later, but just as a taster, I believe that student research is good for wellbeing. And so that's one of the reasons that I'm so committed to it. I actively research and have done, along with Eric and others, with the support of Elon University excellence in mentoring students who are doing research often for the first time. And so really trying to drill down and understand, well, what makes a really good mentoring experience for a student and what do mentors do to make sure that students have this great learning experience? And in my current research, I'm even going into the mentoring of students doing research in schools, before they even get to university, and what difference that might make in them thinking about going to university. And I'm also interested in mentoring of research in lifelong learning. So the whole life course, not just university. I'm sort of really broadening that out now. So I'm very excited about doing that kind of research.

Eric Hall (04:03):

My name is Eric Hall. I'm a professor of exercise science and director of undergraduate research program at Elon University. And my interest in undergraduate research mentoring comes from I guess some of my early successes, I would say as a mentor, but not knowing why I was being successful. So I was having students who were publishing in high level journals and presenting at conferences and they were having success. And that led to me with receiving an award for my scholarship and mentoring and was thinking about what it was that I was doing that was really successful and had the opportunity to engage in the Center for Engaged Learning Research Seminar in 2014 to 2016 with Helen.

(04:45):

And we were really interested in what were the practices that mentors used, that were good for undergraduate research mentoring. And so I wasn't really sure. I didn't have a name for what I was doing or what I was curious what I was doing, but I think I was always interested in trying to figure out how to become a better mentor, but also then as I was, I guess, becoming an elder statesman, I guess in my department, how to help mentor other faculty that mentor undergraduate students also.

(05:12):

And I think the work that we did with this research seminar has put me on the path now where I'm now the director of undergraduate research program at Elon where I oversee and try to help facilitate mentor mentee relationships across the campus and has really helped me think about ways that I can support those as well and what are the best practices to help out with that.

Jessie Moore (05:34):

Thank you both. We appreciate you being here with us today. And your introductions touched upon the research that you did with the Center for Engaged Learning or through the Center for Engaged Learning on mentored undergraduate research. And your primary focus being on the salient practices of excellent mentoring and undergraduate research and inquiry. Could you briefly share what those 10 salient practices are?

Helen Walkington (06:00):

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Sure. Yeah. So the 10 salient practices are fairly wordy. They're from a big literature review over two decades of research literature. And a team of five of us have drawn that together to consolidate and really understand what these key practices are. But I'm going to give this in a very kind of easy to comprehend style and keep it fairly brief. So the first practice is how a mentor supports students over time and acknowledges that different students have completely different needs, completely different starting points when it comes to research. And so really, how a mentor plans to support all these varied needs and abilities of students when they're coming in. The second practice is really about the expectations that a mentor might have and really trying to set a high bar for students so that they can really achieve something interesting with their research, but to make this appropriate to the level because students might be doing research in the first year, they might be doing it right at the end of their studies. And so just setting that level of expectation is really important.

(07:19):

The third practice is about literally teaching the skills, the techniques, and the methods that are necessary to do research. And they might look really different depending on the discipline that a student has chosen or if it's an interdisciplinary project. So yeah, teaching the student literally how to do research from the ground up. And the fourth practice is about balance. It's about being able to work out for a particular student or a group of students, how to balance high expectations for research with emotional support. And I sometimes use an example of a brilliant picture. If you can picture in your minds a bungee jumper just edging towards the edge of maybe a cliff or a bridge or even out of an airplane or something. And the mentor is the one who weighed the person in advance, who put a rope around them so that they're not going to crash into the ground and who is just gently supporting their back but about to push.

(08:30):

And it's that balance, that balance between this is a major challenge, "I hear you. I understand, but at the same time I've got you." So practice four is about that, that balance, that emotional support, but also the expectation that you are going to make a leap. The fifth practice is about community and about acknowledging that we don't do research in isolation generally. There's always a community, there's always other people who will support you. And feeling part of that community and having team spirit is really important. The sixth practice is about making time. So as academics, we're really busy people, but it's so important that we make time to spend time one-to-one with our students that we're mentoring through this research, even if they're doing it in a team. And it's to enable us to give personalized learning to our students. And I guess part of that is being available as well, just being around on campus or available online when a student needs support.

(09:34):

Now, the seventh practices about students really feeling that they own the research and so ensuring that students can take over the reins of the research. The idea for research might've come from an academic member of staff, a faculty member to start with, but students can really own it, shape it, and take more and more responsibility for it. So that's the seventh practice.

(10:00):

And the eighth one is about supporting students with networking as part of a sort of professional development for the student who's becoming a researcher, not just a student anymore. And so supporting that, introducing our students to other members of staff, other members of faculty, maybe even attending conferences and things like that to share their research. The ninth practice is peer mentoring. So actually bringing maybe a final year student into act as another mentor to a newer

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student doing research for the first time or just having students in teams supporting each other, so it's not always the faculty member that's the only single source of knowledge and support. And students benefit greatly from helping other students. So the benefit actually is from the students helping others as well as them being helped themselves. But providing that support to others gives students a real sense of expertise.

(11:11):

The final practice is the dissemination of findings. So the 10th practice is sharing the research that we do with others, whether that's other people in our research team, right through to internationally sharing it, putting it online, having articles published. And so yeah, why do we do research? We do it to share it. So those are the 10 salient practices.

Jessie Moore (11:39):

Thank you for that really helpful introduction. And I love the metaphor of the bungee jumper and the mentor behind them. That's awesome.

Eric Hall (11:47):

Helen did a fantastic job with overview and just very clearly explaining what those different practices are. And I think she would tell you, I think one of the things with the salient practices is that we don't run through them in a linear progression, linear order. So I think at different points in time, different stages of research projects and different moments, different practices become more prevalent and become the focus a little bit more. I think the other thing is that I think we've all valued from that initial work and have continued on is with our research group that we were originally a part of that we came from a number of different disciplines, across STEM, social sciences, humanity. So we were very intentional and have always been intentional about thinking about that this is not just a STEM issue or this is not something just for STEM mentors, that this is really for anybody who engages in undergraduate research, with that being the very broadest viewpoint that we were very cognizant of that fact, and have always been thinking about what that looks like in different disciplines, making sure we have appropriate examples.

(12:52):

Helen has always been fantastic helping me think about this in an international context because there are some differences that are between obviously the US and UK, but then in other contexts also. So I think that those are a couple of things.

(13:04):

And the other thing I'll just mention is that these practices aren't siloed. They aren't individual things that you've worked at one time, is that oftentimes things we do as mentors are actually probably encompass multiple practices. So for example, many faculty members use the learning contracts or syllabi of some sort. And we often talk about, well, there might be other practices, but that's really good for the salient practices one, two, and three, thinking about what are the goals, what are the expectations, what are the skills that we want people to learn? And obviously, there's other pieces to it also, but it is just sort of one of those examples that sort of shows that we oftentimes bundle practices together and then nothing but those. But I think it's important to think about the practices individually because I think those are all things that we as mentors and as faculty members can develop and become better at also.

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Jessie Moore (13:53):

Thank you. And Nolan was not able to join us for this conversation, but a follow-up question from him, do you ever talk explicitly with your students about the salient practices when you're in mentoring relationships or is it something that stays more in the background of your awareness as a mentor?

Helen Walkington (14:12):

I don't kind of list off a list of numbers, but they're pinned on my board at work and they are for me, just something to think through when I'm supporting a student, is there anything I've missed? And maybe they act as a kind of checklist for the kinds of questions I might ask a student at the end of a session. Let's say I'm supervising a student's dissertation, and so I would be talking about where they're at in that particular place in the dissertation, what they need just then. But in the background, I might be thinking, "What would I need to ask right now for a student for their work to potentially be shared in a conference format?" We actually need to be having a conversation right now about putting in an abstract for that so that they get the opportunity to do that down the line.

(15:07):

And it's a bit early for where we are right now in the research. But because I'm thinking about it, that step 10, dissemination, early enough, it might provide the opportunity for that student to think about it now. And I think that's one of the key roles as a mentor is to be able to step back a little bit and think about what opportunities you can give to your students and the kind of preparation they need to put in place to be able to take those opportunities. Even though they don't quite feel ready, it's often too late. By the time they feel confident in their research and they've turned something in for a mark, and when they've got a brilliant mark back, it's a bit too late for them to then apply to a conference because it was last week.

(15:56):

It's that kind of challenge and support role I suppose, but also a bit of strategic thinking, being aware of what opportunities there are for our students and preparing them for that a little bit earlier than they might feel ready for. But that I think is the role of a good mentor. It's about that balance of challenge and support. So here's this challenge coming up, what can I do to support you now if you don't quite feel ready for it yourself?

Eric Hall (16:27):

Yeah, I think that's a great example, Helen, where it's really thinking about the fluidity of the practices and how that changes at different points in time through the process. But also just as things arise, right? So thinking about how you can make those pivots as a mentor and even really focus on this one thing, but then making sure that these other opportunities are taking advantage of also because it has arise. We don't want to miss out on that. To that question, I think it's a really good question. I've had some conversations with certain mentees or I'd say just students about undergraduate research mentoring, around salient practices where it's been maybe been a part of a talk or a discussion that I've had with other people and that they're in the room and just sort of they're aware of it. But I haven't really gone deep into that.

(17:09):

One of the things that we have done at Elon for the last couple of years, and I don't know how effective it is or whether students really grasp it, is we do assessment of all students who do undergraduate

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research as part of a course. So we have a 4998 and 4999 mechanism, and we do sort an assessment at the end of the year. And we do have some questions that we ask them, list about the salient practices and which ones that mentors do well. So I don't know if we have a follow-up question. I don't remember a follow-up question. Maybe ask them to explain their answers to those.

(17:40):

But we do have some data that has looked at that. I haven't really gone back and looked at it in a while, but looking at maybe if there's some trends there, thinking about what that could mean for developing mentor practices, but what really students need at those different times also.

(17:54):

Helen, I love having that as a poster or in some way in the room just to sort of reference. And maybe as my role, I should print off 200 of those and send them out to all the mentors that are out there and have them put up in their offices.

Jessie Moore (18:11):

Well, and for any of our listeners who would like to do the same, we do have a site on the center's website and we'll include the URL in the show notes where they can learn more about the salient practices and see the list as well. So we'll make sure that we share that URL.

Eric Hall (18:29):

And Jessie, also along with that, is you have created some videos that other faculty and staff have talked about using those practices also. So for those who are new to mentoring, it might be a good resource to look at also.

Jessie Moore (18:43):

Thank you for that. And you also, in both of your responses, were hinting at the ways that you've continued to research about the salient practices and mentoring undergraduate research. Could you share a bit about some of your more recent studies related to the salient practices?

Helen Walkington (19:00):

I've recently had published a paper that tries to link undergraduate research to wellbeing. There is, on campus, what's being called in the media, obviously this is significantly big headlines, grab the news, but a kind of campus wellbeing crisis. And with the cost of living and students are constantly thinking, "Well, is it worth it to go to university, to go to college? It's a big investment. And is it going to be good for me?" And so the link I think between students doing research and student wellbeing is something that is of real interest. And I think using a theory by Deci and Ryan, the self-determination theory, it's a psychological theory. And it has kind three key elements about students' autonomy. The feeling of doing research gives you a really strong sense of autonomy. You are in charge of this, you can regulate the experiences you're having, you can decide what you want to research. It can be of real personal interest to you.

(20:19):

The other aspect is competence. You can really feel like you've mastered some new research skills and maybe even develop new knowledge that you could share. And then the final part is relatedness, and that's this feeling of feeling socially connected to other people, but also feeling cared for. And I think

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that's where the mentoring of research really kicks in, this idea that you are doing research and you are contributing to a wider group with your findings. But you feel cared for because you're being mentored through this process and being supported. Whether that's from your faculty mentor, but also maybe from the other students that we talked about in one of those practices where you can do peer mentoring as well and feel part of a community of researchers. And so the self-determination theory suggests that if we satisfy our human needs for autonomy, competence, and relatedness, we actually feel a sense of wellbeing.

(21:25):

So by doing research that's in the real world, that's meaningful to us, and having the ability to choose what that research is, to deliver it, to master a skill or a technique as you're doing that and to then share it with others and feel cared for. To me, there's no better way of learning. It's a transformational experience, and it's what to me, makes university worth the money, worth the investment, worth the time. Because what better way is there to establish yourself as a kind of learner in the world contributing to the world and to become potentially a lifelong learner as a result of having that experience.

(22:11):

And even better maybe to become a mentor yourself in the future. It's very interesting when Eric and I have done some follow-up papers with our research team from the seminar at Elon that we've actually found that many of the mentors that we've interviewed as excellent mentors from around the world, people who've won awards, national awards or institutional awards for their mentoring, have had a great experience when they were at college or university of being mentored and are now giving back.

(22:44):

And so this idea of you've received this great gift that you then pass it on, I think you call it pay it forward in America. So yeah, this idea that doing this authentic research allows you to feel part of this, over time as well through your kind of lifetime. So for me, the wellbeing paper was a nice opportunity for me to really think through why is doing research at undergraduate level so powerful and such an amazing experience for students? And also, to now start thinking, how do we open this up to every student? Because in some institutions it's quite selective or students have to put themselves forward not quite knowing what they're going to get out of it. And so yeah, I think the next step for research is to think through how do we make sure this is available to everybody.

Eric Hall (23:42):

Helen's work I think is really interesting because I think it is just one more of those outcomes that we can sort of demonstrate the importance of undergraduate research. It's not just the, I have a publication or I have a paper or I had this experience, but really just sort of the overall improvements in wellbeing that could come about from that process. I think continuing on with the salient practices work that we've done, and some of this have been with Helen and some of it has been with other faculty on my campus and elsewhere, is I've also been very intentional in thinking about ways to demonstrate the utility of the salient practices in a number of different disciplines. So I've worked with some people in theater and dance on our campus, and Jessie with you and some faculty showing in writing studies. And so thinking about the different disciplines that may not always be thought of, has just sort of demonstrated that it has some utility there.

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But also, I've been thinking a lot about different contexts of undergraduate, where undergraduate research mentor happens. So as a context, I think about in the virtual environment how to use the practices in that environment. I have been doing some work with faculty members at Elon related to how to use undergraduate research mentoring in the global context and sort of what that looks like in some recent papers that come with that.

(24:58):

And also thinking about a little bit different take on, than what Helen's talking about, as far as the potential boost in wellbeing that happens for our student researchers. But as mentors, how we can mentor in a way that is conducive and provides a positive environment that's inclusive for students so that they can be successful, so they can have those gains that she's talking about. So the salient practices, I think when you think about them as a whole, really get at a lot of psychosocial benefits and are sort of embedded within there, that sort of are inherent there. So thinking about them as a whole holistic practice that we can use to help students navigate the environment that they're in and to have positive experiences so that they can be successful and take that forward also.

Jessie Moore (25:42):

Thank you both. And you both anticipated, and one additional follow-up question from Nolan, as we think about ways to increase access to mentored undergraduate research, one space that some faculty and staff are exploring in US context and elsewhere is course-based undergraduate research experiences. I wonder if you see one or two of the salient practices as particularly important for that context, or have you thought at all about the ways that we need to reimagine the salient practices for a course-based undergraduate research experience?

Helen Walkington (26:18):

For instance, in my own university, the teaching of geography, we teach through doing field work. And so we take our students... we're just preparing and making our bookings to go to Malta, or to Spain, so the students can choose between the two. But this is in the second year of their undergraduate study and they are going to be doing research in teams. And so the part of their research methods course, which goes on through the whole of their second year is the planning of a research and project in a team and then going on the field trip in January. One of the key reasons, obviously I've mentioned I was a geographer earlier, the weather in the UK in January is not conducive to field work, but in the southern Mediterranean, it provides a whole warm opportunity to do so. Hence the locations that we go to.

(27:14):

But it provides the students with the chance to then carry out their research in January for a week. And then when they return to cold Oxford, after that, they're then analyzing the data, writing it up, and then they write a proposal for their own individual research which they'll carry out in their final year as an individual dissertation we call it, or thesis. And so it is a course-based undergraduate research experience done as a team, which is helping to prepare students to do their final year project or dissertation, we call it individually. So a lot of the modules we do would have a much smaller project perhaps. And then we get into, well, what is undergraduate research? Does it need to be new knowledge just to the student which is achievable within a single module or course, within a semester, for instance? Or is it something that's got to be groundbreaking? In which case you do need more time to do that.

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And so potentially that's feasible within an independent study or a dissertation module in the final year. But again, like Eric said earlier, disciplines are different and each discipline will have its own ideas about what counts as research in the discipline. It will have its own research methods. Some students will be in archives. Our students are out in the field. It really depends. Other people will be in laboratories, others will be in dance theaters doing observations. There's so many different types of research.

(28:57):

But I think you asked about which of the practices help you to do this within courses. And I think the practices that really facilitate this course-based undergraduate research experience and learning are the ones that support students where they're supporting each other and they're working in teams. So practice nine was around peer mentoring and practice five was around the community feeling of doing research in a team. But I think, to some extent, all of the practices can be involved, but those are the ones that really help you embed this into a taught course in some way.

Eric Hall (29:40):

Helen, what I was going to say is I think at some level, I think all the practices are important to at least consider when thinking about planning out what that research experience is because I think ultimately, what we're trying to do is we're trying to develop them as learners also. So I think that they're all really important. And I think in a lot of the context that course [inaudible 00:30:01] happens. It's often, there is a group component to it. So I think Helen's spot on with this idea being the ones that facilitate that group work and mentoring of maybe one another's.

(30:12):

The other one I might say is thinking about making sure that you identify what the student skill sets are in these groups and try to make sure that you as a faculty member can make sure that they can do what they need to do also, or that you're partnering them with somebody who can help bring them along or have competing, not competing, but supplementary skill sets that they can help each other out. So I think that's one that I think is probably really important to make sure we make expectations based on coursework, that they have these skills. But obviously, some are going to be better at certain things than others. But how can you use that knowledge to have a good experience through course-based research?

Jessie Moore (30:51):

And you're making me think of, I routinely teach a senior seminar, which is a capstone course for students in my major, which is professional writing and rhetoric. And I remember once having this recognition that I was getting frustrated that the students didn't know how to do something that they needed to do for their research projects in the course. And then I realized that they hadn't been taught it anywhere yet. And so the salient practices were helpful as a reminder of, okay, so that's something that we need to explicitly teach that skillset. And we hadn't been teaching it so it needed to come back in.

(31:27):

So I agree that they all have a lot of application in those course-based contexts, and they are really a rich tool there as well. So thank you for those contributions. I wonder, we've talked a lot about what the salient practices are, and we've heard particularly with some of Helen's more recent research, why the salient practices are important in terms of things like wellbeing and feeling like college is worth it. Are

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there other things that you'd like to share about why the salient practices are important for mentors to consider, for institutions to consider?

Helen Walkington (32:02):

I think that the salient practices are really important for institutions in supporting faculty members so that they can then support students. And I think they're a fantastic kind of framing, really, of what we do as mentors. There's a lot in teaching that is considered to be tacit knowledge. It's kind of like we have this understanding, but we never really write it down and we never really say very clearly what we're doing. And I think by trying to literally write down in 10 practices how to be a mentor is actually quite a useful exercise.

(32:47):

And as Eric mentioned earlier, we have got these videos of people talking about how they do each of the practices on the website. And so yeah, I think it's useful from that point of view. And I think it's very useful for training university faculty and maybe also graduate students who are supporting the research and maybe laboratory demonstrators and technicians and maybe library staff. All of the people in a university or college that support students can benefit from understanding these practices, not just the direct faculty mentor perhaps.

(33:28):

But I think Eric's also led on a piece of collaborative research about how mentors struggle maybe with some of these practices. And by having written them down, we invited people to say, well, which of these practices do you do? Which of them do you find more difficult to achieve? And that in itself has provoked faculty to think, "Oh, actually I don't do all of these. I do most of them, but there's one or two here that maybe I would enjoy developing in my own practice." So I think it has provided a nice framework for faculty members to reflect on their own teaching. And maybe in the UK we'd call that quality enhancement, maybe think about their own teaching in those terms and thinking how they might like to enhance their practice in their own career.

(34:27):

And I think one of the things I've noticed, I mentioned in my introduction that I'm increasingly working in other contexts as well, including students doing research in schools, is that we have a teacher crisis in the UK. We can't get enough teachers in schools to stay in the profession for a long period of time. And I think by teachers in schools being given time to support students in schools to do research, we can actually encourage teachers to stay in the profession because they find this mentoring itself really valuable for their own practice, for their own feeling of satisfaction.

(35:07):

And of course, it massively benefits students because they're getting this kind of personalized research experience at school level, which prepares them to go into higher education if they want to, or into the world of work if they prefer to do that. So I think there's an importance to these practices in framing, not just for higher education teaching, but actually in other contexts too, even if it's with adult learners learning a new language or something like that, the teachers that do that still consider their own practice and have been using the 10 salient practices in lots of different settings, not just higher education.

Eric Hall (35:51):

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Yeah, I think just to reiterate what Helen said, I think the nice thing about the ten salient practices is I think if you just look at them, if anybody has done mentoring, I don't think anybody's ever been blown away by like, "Oh my gosh, I never thought about that." I think that they all make sense.

(36:09):

But I think what it does is it gives some common language, right? So what Helen said is thinking about training, what are the needs of faculty members or mentors, how to help support them. The undergraduate research program at Elon a couple years ago, I helped with it, but they had created a great workshop that was talking about writing for promotion and tenure and writing for self-evaluations and sort of centered the salient practices as a way to talk about undergraduate research mentoring. And I think it really was helpful for faculty to have the language of those to come back to and use as support for what they were doing. So I think that's really some value because it really allows you to pinpoint maybe where you individually might be struggling or as an institution and how can we help develop that? Because I do think that the practice when it comes down to our pedagogy, pedagogies in some ways, and that since we're all in that field, that it just makes sense to be able to think about it from that standpoint also.

Jessie Moore (37:06):

When to amplify that. I really appreciate that it is a tool for self-reflection, and as mentors, it gives us something to look back to. We've already talked about having it on a board in our offices. That is a useful reminder for all of us that no matter how experienced we are as mentors, to just revisit and think about, okay, so with this student or this group of students, have I really thought through all the practices? Is there something that I could amplify in my next session with this student or my next meeting with the student? Thank you both for your continued work in this area.

(37:42):

Any last takeaway or anything else that you would like our audience to know about the salient practices as they're thinking about, whether it's college students thinking about their own experiences or the people who are supporting them? Any last takeaways or key ideas that you'd like to share?

Helen Walkington (38:00):

I've got a really clear takeaway. Get involved in mentoring. So it has so many benefits for you to be mentored. Ask people to mentor you. They'll generally be very happy to help. And a mentor for your career development, for your learning development, for your undergraduate research. Think more broadly here. You can have mentors for all sorts of different things. So start off with this kind of idea of a constellation of mentoring, of mentors for different things to support you.

(38:34):

But also you being part of, I don't know the right metaphor for constellations and stars and things, but you are part of this bigger universe. You should also be a mentor to other people too. And so really feeling connected through this process of mentoring I think is really important. It's good for our wellbeing and it connects us to other people and we can all benefit from it, but we can also give back from it too. So I would just say get involved and don't be afraid to ask people to be your mentor. Generally, they will be very flattered and we'll be only too happy to help you. And if they're not, ask someone else.

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Salient Practices of Mentoring Undergraduate Research

Eric Hall (39:15):

Mentoring is important. It's how we all oftentimes learn things. Sometimes we're taught, but oftentimes the bigger things, we're being mentored or guided along what's going on. So I think being a part of that process on both ends is really valuable. And I think it's very important to make sure that you know that there's not an uber mentor, there's not one person who can do it all. As Helen was mentioned, you probably are going to need multiple people, and that's where thinking about the different skillset and they're all going to do it a little bit differently, but you should find people who are going to be emotionally supportive of what you're doing also, right? So thinking about you as a person. Your holistic development needs to be front and center and thinking about that. I think that's really important for everybody to keep in mind with these relationships also.

Jessie Moore (40:00):

Helen, I really appreciate you saying find a mentor. And don't be afraid to ask. I was talking with some seniors or fourth year students here last week, and one of them said that their greatest regret was that they had not pursued undergraduate research and that they just didn't think that they could ask. And so I think it's really important for our students and others to hear that ask. Ask about a potential mentor, ask about joining a project. The worst that can happen is someone can say no, and then you can ask someone else. But I think most of us as faculty would be delighted to work with students who are interested in the projects that we're doing and seeking relationships with us to support them in their professional development.

Eric Hall (40:47):

I was going to say, I know Helen touched on it earlier on, but I think it's this idea of there is a, I'll say an inclusion problem sometimes when we think about undergraduate research mentors. I think oftentimes there are certain cohorts like honor students, most universities have to do something like that. But I think it's sort of thinking about making sure that everybody knows that this is something they can do. I think one of the things, going back to undergraduate research is something that's very heavily involved in the STEM fields, but I think just making sure that everybody knows that there's some sort of inquiry project that's going on or inquiry question that can go on, that they can pursue no matter what their major is. So I think having them seek out those opportunities, I think that many of us who love mentoring would be happy to do that.

Jessie Moore (41:35):

Absolutely. Thank you both for taking time to visit today, and thank you for all your work on the salient practices. Great as always, to catch up. But I also really appreciate you taking time for this podcast conversation. So thank you.

Helen Walkington (41:50):

Thank you very much, Jessie. Great to see you again, Eric.

Eric Hall (41:53):

Yeah, it's good to see both of you. Jessie, thanks for all your support over the years with the salient practices.

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Salient Practices of Mentoring Undergraduate Research

Jessie Moore (41:59):

My pleasure. It's good work.

(42:03):

Nolan, what caught your attention when you were listening in on this interview?

Nolan Schultheis (42:07):

One of the salient practices that really stood out to me was balancing the expectations of research with emotional support. I think this is really important because while it's a project in of itself and it's still an assessment of the student, it's definitely a more personal experience with mentor and student. And I think kind of keeping that balance of the push for the research side and then the support with the emotional side is a very delicate one to balance. And I think that that's definitely reserved for only mentors who are truthfully willing to see these students grow and thrive. And I think I remember Dr. Walkington had said some sort of analogy or metaphor where she was pushing a student out of an airplane on a bungee cord, and that stood out to me in the perfect example of the balance. You need to be enough of a pushing force to keep the student going while still knowing that they had that safety net. And I thought that was a really interesting salient practice that I think tends to go overlooked in most classrooms, just on a general day-to-day basis.

Jessie Moore (43:18):

That metaphor really stood out to me too. I appreciated the ways that it recognizes that part of being a mentor is helping students grow and take calculated risks, not unnecessary risks, but calculated risks, but with the support and safety measures in place that will increase the chances of them being successful as they're taking those risks. So that's definitely a metaphor that'll stick with me as we think about salient practices. One of the other things that stood out to me was that the salient practices really encourage thinking about tailoring work with individual student. So thinking about the prior knowledge that individual students bring, and then helping them build on that with new skills development, as we said, with the bungee jumper, thinking about their emotional needs as well as their academic needs or their skills development needs. So it's really prompting mentors to be mindful of each individual student they're working with, even if they're working with a whole team of students, and recognizing when they need to adjust things to each unique student rather than to a cluster of students.

Nolan Schultheis (44:32):

Another thing that I found very important just during the conversation about salient practices was the mention of how they're not actually a list, they're more so a guideline. And the ability to kind of switch which one comes first in a situation with a certain student, I think is as a great highlight of how personal the experience is catered to be. And I think recognizing as a mentor that you may have to rely on one salient practice over the other, or completely neglect one, I think is another great thing about them. It's a malleable kind of practice.

Jessie Moore (45:09):

I appreciate that perspective, and I think that it also highlights that this is a bit of a toolkit for faculty mentors, that it really helps ensure the success of the mentoring relationship, again, if both parties are really committed and invested to it.

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(45:26):

I know that both our guests are still thinking about salient practices applied to other areas of mentoring. They originally developed the list thinking specifically about mentored undergraduate research, and primarily as an independent out of class activity. But as they're thinking about improving the university experience for all students and increasing the number of students who are able to participate in undergraduate research, I appreciate that they are thinking about the ways that the salient practices can be adapted to those other contexts. And I look forward to seeing what they learn as they continue to work with this set of 10 strategies.

(46:09):

Once again, I'm Jessie Moore.

Nolan Schultheis (46:10):

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

Jessie Moore (46:17):

To learn more about mentored undergraduate research, see our show notes and other resources at www.centerforengagedlearning.org. Subscribe to our show wherever you listen to podcasts for more strategies on making college worth it.

Nolan Schultheis (46:40):

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