- What does creativity mean to you?
  - As chair of the music department, this is a lot of what we do: we create. In our area we create in the form of music, visual art, theater.
  - Creativity has a lot to do with bringing something into being. For us that is the artistic expression.
  - I agree: 'bringing something into being.' Something that is new, unique or done in a different way that is tied to innovation. Something that we have not seen before in that particular way.
  - o Creativity is divergent thinking styles. Interdisciplinary teams cross fertilizing.
  - o Increased knowledge and the application of that knowledge takes creativity.
    - What is it about that increased knowledge that is creative?
      - I am a faculty member in education and development, so our college feels less of the 'creativity' and more of the 'discovery.' But we have to think about studying research problems in creative and innovate ways in order to think about what is going on.
- What does Creativity, Discovery and Innovation mean to UND? How is it expressed here at UND? What does it look like?
  - I think of the kinds of disciplines that are more free form. The opposite of scientificmore free flowing, an 'ah-ha' processes.
  - I am a physicist and we have our own creativity as well, especially in terms of expressing ourselves through our research. Some of the things we do can be controversial in our research and artistic accomplishments. This is the difference between academia and industry. Here, we do research for the sake of research. This allows us to do what we think is important academically. This is important and is part of the creative process.
- Through experiments in science, music, drafting in creative design, or research in the social sciences- what are the intersections that we can see between those processes and experiences? How can we open a dialogue between those experiences, which really have a lo tin common?
- How do all these things connect to discovery? How does creativity connect to discovery and what does that mean?
  - The delivery of our teaching styles and how we disseminate our information is creative.
     We each have our unique approaches and methods to teaching- so how we do what we do in the classroom or lab is creative and different.
  - For me, science and creativity intersect and appear when I am writing. Through the
    writing processes, especially with other people, this is where discovery happens. The
    COLLABORATION of THOUGHT and different perspectives coming together. Its manifest
    in writing, meaning, brainstorming meetings.
  - Correlate creativity in teaching: when we actively do research or create art or music we
    are also showing undergrad and grad students how the process works. We are not just
    'teaching' (transfer of knowledge), but we are leading by example, suffering this creative
    pain and living every day to get the next idea or experiment to work. Students working

with us all have the same thing. They are in our labs seeing what it takes to come up with an original idea and how to turn that idea into a research proposal. We teach them every day how to work as a creative person. Creativity in how you discover and communicate the original idea. It is a process and the students working with us in our labs are experiencing that process with us. Creativity, Discovery and Innovation is PART of the teaching that we do and this is why being a research university is important. This is to show students real life cases and experiences of Creativity, Discovery, and Innovation.

- When I think of creativity at UND I think of silos. Hard to find people to do interdisciplinary work with. The interdisciplinary projects that I have done have been lucky in a way. Creativity being a process is important. These processes do not come out fully formed. We need to have steps that can be supported, learned. Students don't see their work as creative. If students just do the work that is asked, it takes away the creativity of the process. Demonstrating, modeling, getting the creativity process that is part of the writing process, thinking process, etc.
  - Why do some of these students not think of their work as creative?
  - I believe there is a separation between science and art. When my students write a paper based on evidence they don't feel they can be creative. Think science must be neutral and thus cannot be creative.
- o From an engineering program, our students have similar problems. They think there is a right and wrong answer. They don't think of themselves as creative. The more we give them open ended problems that don't have yes/no answers the better. Providing those open-ended questions leads them to think more creativity (and causes some angst at times- hard for them to accept that there is not always an easy answer, or an answer at all).
- Idea of the 'Fascination with what difficult'- it is such an important part of what we do.
   This is part of what it means to teach students that they are makers and creators. We should embrace what is difficult.
- This goes back to goal of our working group: we need to think about who is served by Creativity, Discovery, and Innovation?
  - Today I am hearing that we need to push all our students, across disciplines, that they
    are all part of the creative process.
  - o I think so, and I think that we can ask the opposite questions. When we teach that there is only one answer or a 'do this to get an A' approach we are doing them a disservice?
  - Agree with this and find this in entrepreneurship as well. If I pose the question: 'can you learn to be more creative' most think 'no.' We are socialized to think that there is only one answer. These things take time, and often incorrect answers. Creativity, Discovery, and Innovation takes a lot of time and messy.
  - Building on that, there must first be an opportunity where you build the tools. Students
    must have the tools, experience, the knowledge to be able to get there. Give them small
    chunks where they can solve smaller problems then begin to introduce them to more
    open-ended questions. As they get this, they develop the skill set for more complex
    open-ended problems. We will have provided them the tools they need to succeed.

- How could we promote this and build it into the experience? This is skill building. What might this look like if we were to build this into the culture at UND. How to be innovative and teach these skills to our students?
  - We talk about open ended problems or other ideas, but we as academics across the university- we stick with what we are comfortable with. If we widen our view we can widen our knowledge. We need to work with partners in industry, in NGOs, at state and federal level. I cannot always see these problems because I am stuck in my office. Often federal funding agencies say 'we need this problem to be solved' so often this can help drive innovation- because I have not always thought of the problem from that lens. Helpful to see these things from other angles; think about problems in different ways.
- How do you nurture this at UND? Could this be part of a first-year experience so it is socialized? The idea that creativity is a messy process and anything that we can do to 'take away' the feeling of angst due to this would be great.
  - I think that we also want to help our students have the tools/techniques to work through these feelings.
  - o Yes, being comfortable with distress of not always knowing the answer.
- Appreciate conversation with students and being comfortable, but I think that the faculty is a big component of this. What are the challenges that hinder progress on this? I think a major challenge is having more faculty on campus that are engaged in this work. In our college we are recruiting all the time, there is no much turnover. We are rarely adding more positions with a main research focus. In the last [current] Strategic Plan we had Grand Challenges- in my college (Education and Human Development) we felt excluded from these. For that reason a lot of faculty felt undervalued in terms of their research.
  - Always question looming over us in terms of if we are going after R1? What does that mean for UND? Do we have the money to go after those researchers to come here?
     There are questions I hope the new plan addresses.
    - Agree with the Grand Challenges comment. The Arts have no room in these as they are written, and we were also disappointed when they came out.
    - Agree I was really shocked that so much of our campus was left out of the Grand Challenges. We tried to create a faculty list of those interested in interdisciplinary work, but it seems like it has not gone anywhere. I was really taken aback by all those that want to do the interdisciplinary work, but it seems like we don't have the resources or time to do this.
    - North Dakota is a weird place in different ways. Feel like UND has opportunity to be innovative or creative in different way that is separate from those R1 institutions. We can attract those that look at what it means to be creative outside of R1 status looking at this differently attracts creative people. Sometimes an R1 can crush people, but we can bring people to be more creative and help think of unique solutions to this. 'Keep UND weird.'
    - In terms of the Grand Challenges, we tried to understand what this was intended for. This idea that we need to move to an R1- so how do we do this and how to do it in a way that is strategic. We had to do this in a focused way that looked at research that was geared towards federal grants. Some of these are clearly activities that are nationally recognized. Areas UND can be

- recognized for. We wanted to identify them, invest in them, see them as strategic priorities that then become a platform for those that do not directly contribute to the Grand Challenges, but they can still participate in a way. It should open opportunities for multidisciplinary collaborations in a way that allows more people to participate.
- Problem is that it became, in a way, seen as a means of exclusion. What is the value of our research if UND prioritizes these other areas? What is the university saying about us? Is our work in creativity, discovery, and innovation not important? It is important for our folks in our college and those that we serve. We need to support our programs. We need to address this tension honestly and in a productive manner.
- I am a physicist, and my research is broad so Grand Challenges was never an issue for me; I can always find a way to participate. But I understand the point. What has happened on the campus is we came up with these specific research fields and the rest of the campus felt like outsiders. The university is not a company. We cannot just move to a new product line (so to speak) and fire 20 % of the people that are working for old product line, hire new people and move to new industry. This is a good thing because it creates a stability and long-term investment. If a company does not make money, they can close doors or move. A university does not have that. Most of our departments have that community responsibilities like the arts, etc. provide valuable services to humanity. Pushing hard in getting to R1 status is a noble idea and I support it, but we shouldn't do it in way that we forget this is a university and we cannot just rehire because certain things become 'hot.' Should be done in a way of always remembering this is an academic institution, we have a greater call and responsibility to our community. I value teaching, I value innovation and discovery- not just for the profit, but for the human experience, this broad sense of meaning, we are losing if we are only chasing the next source of funding. We need to stick to being a university vs. a company and trying to make profit out of everything.
- I agree with so much of that. When the Grand Challenges came out our departments (and the arts as a whole) felt like outsiders. Felt like our contributions don't matter. But we have nationally and internationally known musicians that are creating and performing all over the world. We have great faculty, but we are not going to bring in the research dollars. So, if this is our sole focus, the thing we are measuring, we will never be able to compete.
- Agree, felt like the main measure of success was just dollars. If we are looking at creativity, discover and innovation, we need to have multiple measures of how to meet out goals, not just dollars. This is soul sucking.
- What should those measure be for CDI then?
  - As a physicist, I need to write papers and submit grant proposals. This is in my field-research is important for hard sciences. But we are trying to give this definition to everybody trying to say that all departments are the same and should be measured in the same way. This is not correct. Every academic department has their own expertise

and the way that they value academic performance, and we should give freedom to those people so they can decide vs. a top-down approach.

- All departments have guidelines, but do you still see this as top down?
  - I see how we are prioritizing certain research fields over others. If I came from other disciplines, I would feel less valued. How do we give value to these other departments? Funding is important, but we need to find balance in including everyone in this and moving research and discovery forward. I feel the balance is off in recent years.
- So, how do we measure success for creativity, discovery, and innovation?
  - I would like a measurement on the degree of interdisciplinary work. Right now, barriers exist to this, or perhaps there are inherent barriers to this in academia. Our research is rewarded in our disciplines, so it is often hard to work with others. If we could somehow reward or see success around interdisciplinary work, I think that this would be helpful.
  - To the success question: different departments will use different metrics. Research funding is just one metric. Just like counting publications some people are good at the publishing game (even if it provides little to advancing the field). So this get into questions of quality vs. quantity. So depending on departments our success looks and should be measured differently. We need to capture this in some way.
  - To the Grand Challenges issues brought up earlier, I am a Grand Challenge Champion, just wanted to say that we never meant it to exclude people. I would open a conversation up with anybody. Always want to sit down with folks from different disciplines, but it is important to see and hear the tensions with this and where they lie. Sometimes the issue is just time; I just run out of hours in the day. I think the metrics need to look different depending on what different disciplines do, but also need to find some common metrics because they intersect as well when it comes to creativity, discovery and innovation.
  - I know Mike Mann is Champion of the Energy Grand Challenge- and he has held workshops across camps where everybody is invited. For everyone to see what research is currently happening and see how others can add to it. I like the idea of campus-wide workshops where everyone is invited in to see how they can contribute.
    - We did a few of these when we first started and they were somewhat successful, but we probably need to do more of this. It is important to sit down with people to see what you have in common and what they can add to the conversation.
  - Not one way we can define success. There needs to be a scale of objective (hard indicators) and the more subjective internal indicators. Look at research expenditures, publications, etc. but on other side we need to determine if faculty believe they have good balance between research and teaching, feeling like have sense of relatedness between each other and their students. Seeing if they have good job satisfaction. If we don't do both things, then people will not be happy and as successful. Seems like we just push to measure external funding but measuring and making strides on the subjective internal indicators gets left out.
  - Appreciate the idea of objective and subjective measurements. Often, we look at those things that are easier to measure but think that is important that we have a mix. We

- need to look broad and see impact of our research. Need to look at the REAL IMPACT. Did this change something and what did it do? Hard to measure but incredibly important.
- Success metrics need to be discipline based. Expectations of one discipline do not always translate to other discipline. Need to look at our aspirational competitors and our peer competitors. Need to have way to complete against our peers and then look at the aspirational and how to make those our peers with time as we work towards our goals. If grants are not expectation as part of discipline this cannot be the standard. Needs to be discipline specific. However, I do think that we need to invest in what we are strategically good at. These research areas elevate the reputation of UND and generate a halo effect for all of us. If people look at UND because of our strengths in these areas, and come here because of them, we are all better off. So, from universal UND point of view, we need to look at and concentrate on areas that we are dominant.
- When talking around Creativity and Innovation we have to question the status quo. We cannot measure everything just to chase status. We compare ourselves to each other too much in higher education. Yes, we need to attract top faculty and students, but I don't think our status should be the end goal. In terms of measuring things, I think one of ways we think about how we are successful is how are we living to our values as an institution. Are we serving who we need to serve? Are we helping North Dakota? Are we being rewarded for doing community research? Are we living up to our values by our processes, actions, deliverables? If we talk about creativity, we can't just do it in confines of status quo.
- o In terms of how to measure success I would say: what does our morale look like and what is our employee satisfaction, our student satisfaction, and what does the community think about what UND is doing to help them?

## Thoughts/Ideas collected via email post Open House:

- I think Music Therapy was a great program! Maybe they could consider bringing it back? It has interdisciplinary aspects and there is a demand for it. I honestly don't know why it ended. This addresses Rural Health (i.e., mental health) in a positive way. I do understand that not everything has to bring in external money or result in jobs; however, I think music therapy an opportunity. To consider bringing back a program may seem a little strange, but I don't think it's unheard of -- especially one that gives the opportunity to address a grand challenge in an interdisciplinary way. Maybe a reinvented program could be interdisciplinary with Music and Psychology and/or Counseling to bring it back robustly with the potential for grads to get licensed. Further, I can imagine that there might be external funding agencies and donors interested in that topic area. As much as we strategize of what we might want to do, I think meeting market demand is extremely important!
- Working with other Strategic Planning working groups on First Year Experiences and High Impact Practices.