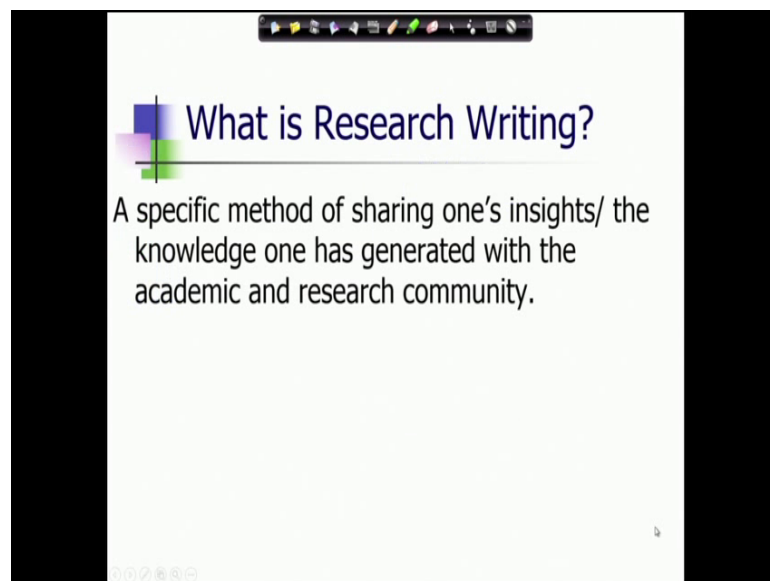


**Research Writing**  
**Prof. Aradhna Malik**  
**Vinod Gupta School of Management**  
**Indian Institute of Technology, Kharagpur**

**Lecture – 02**  
**What is Research Writing**

Welcome back to the MOOC course on research writing my name is Aradhana Malik. And I welcome you to this course. I will be helping you through this course, I teach at Vinod Gupta, school of management at the Indian Institute of Technology in Kharagpur West Bengal India. And I hope you had a chance to hear the introductory session, where we have talked about the expectations from the students. Now we will get down to the nuts and bolts of this course. So, let us see what we have for you here, this particular session we will focus on what research writing is and why it is important.

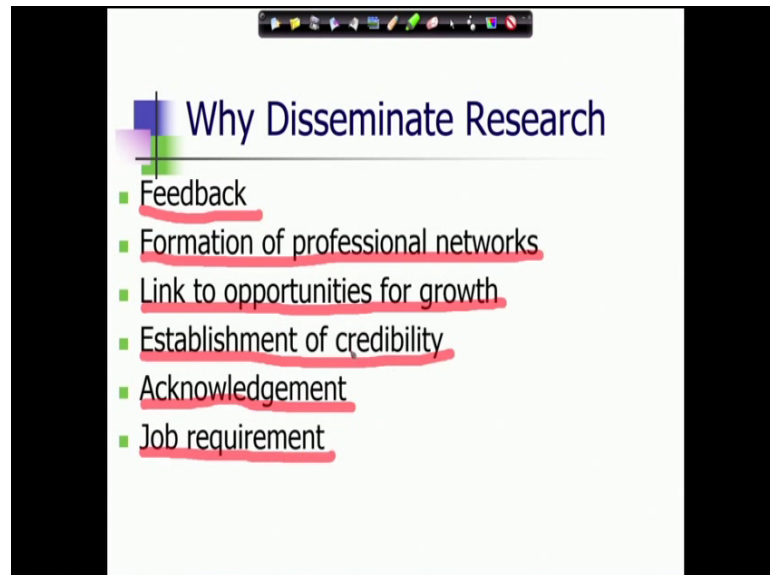
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What is research writing? Research writing is a specific method of sharing ones insights or, the knowledge one has with or the knowledge one has generated through ones work with the academic and research community. So, research writing is a particular method by which we share what we have developed the insights we have garnered, whatever we have process, whatever we have analyzed, whatever we have found out through our work, with the rest of the academic. And research community with the people who can use that information to build on that knowledge base, and to add to their own

understanding of how knowledge or how information in a particular field is you know can be used.

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So, that is research writing now the reason for this for writing a certain way, is that researchers know where to look for specific information, they know they are trained to over time they realize that, if you want to study you know they will look for specific pockets of information, or they know where to look for specific types of information in these documents.

So, it is not a free flowing narrative it is a special way of writing about or building on the existing knowledge, and adding or smoothly translating from or transitioning from that old existing knowledge, into a new field into a new body of knowledge that one has created oneself. So, and then sharing that whole story of how one built up on existing knowledge, and try to understand or find out something new from that with the academics, and research community with the people, who can use that information to build on it further, that is how the knowledge base grows

Now, why do we need to share our the knowledge we have created, I used to have a student ones who said mam I do not understand, why I should be sharing my insights with others, I have learnt it I am fine with it I have learnt something new big deal. And my answer to my response to the student was what you are going to do with whatever you have learnt. I will keep on working more I said, but it is of no use.

So, you can only share or you must share whatever you have garnered for various reasons. The first reason for doing this is feedback here please pardon the crooked line but this is for your benefit. So, why feedback? Why do we need people to give us feedback, when we take our knowledge, we share it with others, who understand what we are doing, who understand the specialized field herein, and we take this to people in conferences, we write a paper about it, we share it with people who will read it and use it in the research. Either by going through whatever we have written or by using whatever we have written, they are able to tell us whether the utility is you know whether there is any practical utility of whatever we have written.

So, whether it is really adding to the knowledge base or not. They also give us insights on how else we can explore you know whatever we have been exploring, how we can understand the concept we seek to understand better. So, that is why we need feedback you can try, but then you know several mind are better than one.

So, you may be doing something very well, but the minute you share it with somebody who has no idea about why he started that work who does not know, but your journey looks at it from a fresh perspective. They are often times able to see things that you may not have part existed. So, that is why we do, why we share research. The second reason for this is formation of professional networks.

Why do we need to form professional networks, when we share research with the academic community, with the research community, we get feedback. And then we also stimulate interest in others who might have been interested in the same kind of work, or we also get in touch with people who are already doing this kind of work whom we may not have known about. So, we form these networks, and then we get together and we either expand we are able to expand the scope of whatever we are doing, because as humans are capacity is limited at some point.

And we are also able to go in different directions, we can actually bring two similar or two somewhat connected ways of understanding or somewhat connected idea you are insights together and develop another direction. And so, we get together and we build more knowledge, we also can get more opportunities

So, you know we will build these networks. So, we are connected to different people who are working in the same field, as us or similar field we get the feedback, we get their

insights we contribute to their work and they contribute to ours. So, we sort of build a family or a professional family of people, who are trying to create a similar body of knowledge.

The third reason for excuse me disseminating research is the link to opportunities for growth excuse me. So, why do we need opportunities for growth? You are sitting in your own college institute doing your own work great fantastic, but when you share your research, somebody sitting in some part of corner of the world picks up your research, and says hey you want to do something together.

I have this experience and it is amazing, when somebody you would never knew you know about or somebody that only thought about reads up your paper, and says hey you are doing something great. And they say why do not you come, and join me you may get a postdoctoral opportunity, you may get a PHD an opportunity to do a PHD, with a senior faculty member who has years and decades of experience, who may be able to help you grow in your own desired profession, or desired area of interest.

You may be able to get in touch with peers, with other people as the same professional stage as you and form networks, and form alliances, and do some collaborative research together in different parts of the country, or even different parts of the world. So, you grow as a researcher if you share your research.

The other reason for disseminating research is establishment of credibility. Establishment of credibility how when you share the results the fruits of your labor with others, and they say great you have done fantastic work, and they could have sample. If you publish your research publication is not that easy you send your idea to a journal, it gets reviewed, it you get feedback on it you, work on it you, review it you correct it.

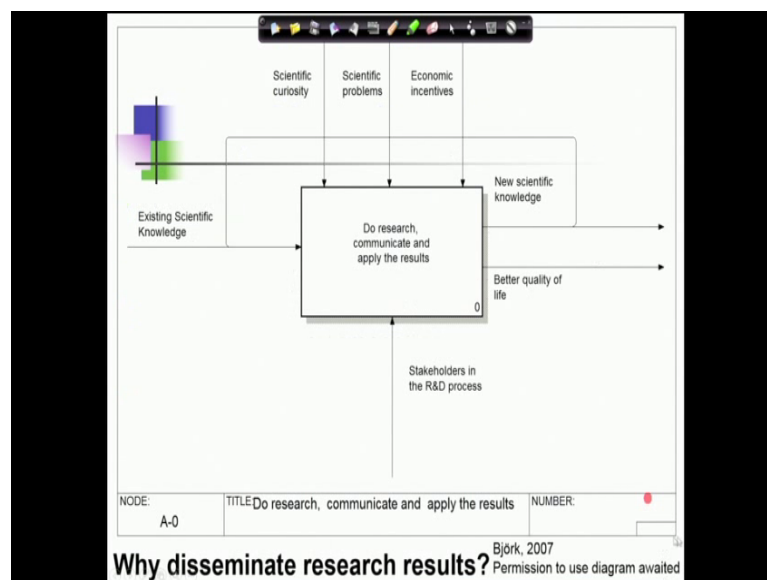
And then it gets published which means that there is a stamp of approval of senior people, who have seen your work. So, getting a publication is a clear indication publishing something is a clear indication of your of the correctness, or of the utility, or of the acceptability of your work. So, your credibility in is increases.

Acknowledgement another reason is acknowledgement. After all we are human beings we all want somebody to say that we have done good work. So, when somebody says if it is you know it is the equivalent of somebody saying well done, you did actually add to

the knowledge base that is a different from credibility is professional trustworthiness acknowledgement is a positive stroke to you.

So, you feel good when you disseminate when you share your results, with someone when you share your research with someone, and then they say yes once it gets published it is actually an acknowledgement an acceptance of your work, and that acceptance make you feel good. And lastly, but the most practical reason why you should you need to share your researchers it is a requirement to get a job you cannot become (Refer Time: 9:28) till you have a publication, till you publish, till you have shared your research, you cannot grow in your careers till you shared your research this is the job requirement ok. So, this is why you should disseminate your research.

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This is a diagram from a paper by Bjork, and the paper is called a model of scientific communication of a global distributed information system, and this is bi (Refer Time: 10:05) from the Swedish school of economics and business administration, I have requested doctor Bjorn (Refer Time: 10:13) permission to use this diagram. Now so, why should you disseminate your research results, and doctor Bjork says that you do your research there is an existing scientific knowledge base. There is a scientific curiosity there are scientific problems to be solved, there could be economic incentives.

So, you do your research to and communicate, and apply these researches there they could be stakeholders in the research and development process, people could be giving

you money to conduct research, and share some results with you are in the pharmaceutical industry, you know you need to make new medicines. You are doing research you want to find out how cancel the spreading you want to stop a cancer from spreading.

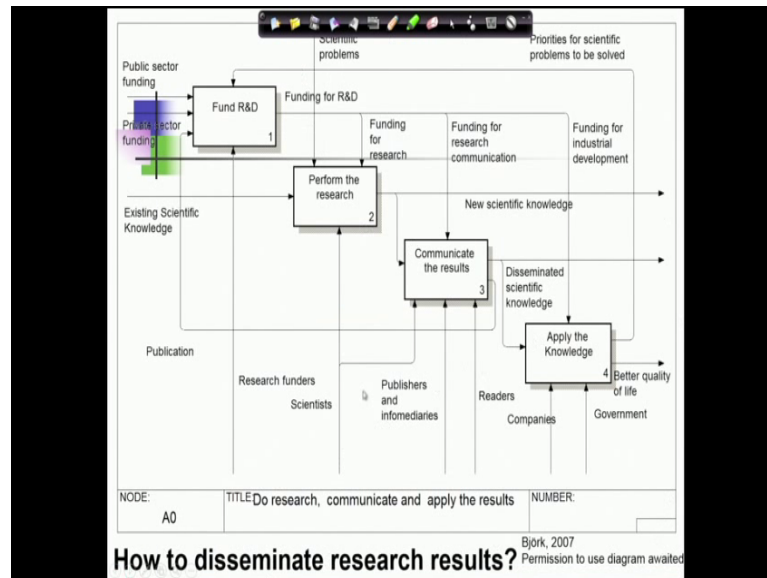
You are doing research in economics, and I have a student and economics sitting with me right now in the studio. So, you are doing research in economics, and you are trying to find out how you know how the country is growing, and you know where the inputs need to go so, or how to shape the country's economy. So, you cannot research to or how to so you conduct research to come up with some new knowledge that can be used for the betterment of human life.

So, you create new scientific knowledge, because of all of these reasons they are scientific curiosity you just want to know why things work the way they do. There are scientific problems there is you know let us talk about climate change you want to know, why climate is changing so fast, what can you do with the existing needs of the society to check this rapid change of climate. You want to know how to alleviate the quality of life of people, you want to know why so many people are under stress, what is what in our current day to day life is causing all this stress, why are people becoming stressed, why are these you know psychosomatic disorders increasing.

So, there are scientific problems you see somebody in trouble, you want to know why they are in trouble, you conduct research to find out all of those things. They are economic incentives somebody pays you to do research, you come you know you join as researcher there is a fellowship to help you grow.

Stakeholders pharmaceutical companies will pay, you money to conduct research you just sponsor your research maybe these the scientific research organizations could be sponsoring your research. The research and development wings of various other companies could be partners in this. So, you create new scientific knowledge, and you want to create better quality of life. So, you do research and you communicate and apply the results.

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Now how do you discriminate research results? This is a game from the same paper by doctor Bjork, and so what do you do there is public sector funding you need a fund for research and development, you need somebody to give you money. So, the money could be coming from the government, it could be coming from private organizations.

It could also be coming from people who have used the knowledge that has already been created, and who have seen scientific problems being solved. So, all of this feeds into the refund for research and development, it could also be coming through research funding it could also be coming through publications. So, there is funding for research and development.

Now, the fund then enables you to perform the research that can help you solve scientific problems. And you solve these scientific problems, and how do you solve these scientific problems there is existing scientific knowledge that enables you to do research, there is a problem that needs to be solved. So, there is a stimulus that helps you move in a specific direction, the funding enables the nuts and bolts.

There are scientist who had willing to do the research. All of this, then results in one services has been performed at results, and communication of the results. Communication again is possible because of funding for research communication it is possible, because the research has been performed there are publishers, who are willing to publish your work and there are intermediaries in the spread of information.

So, these this then results in the communication of results. Now when you perform the research new scientific knowledge is created, and so once you communicate the results to the people who can use them, you disseminate scientific knowledge. So, you communicated to common people, and you also disseminate scientific knowledge through the research publications that you have there are readers who read what you have done. They there are people who would then want to apply the knowledge. So, there is funding for industrial development that is available, there are people who would want to understand how whatever has been the new information that has been created can help the work that they are doing.

So, pharmaceutical companies let me take that easiest to understand, pharmaceutical companies will take what you have generated, pump it back into they will you say so and, so medicine, so and chemical compound can help maybe alleviate the symptoms of or the effects of say cancer is the easiest possible the most well-known example is what I am taking you are.

So, you say so when your experience an extreme pain in the final stages of cancer this particular chemical compounds, can help lower the pain that is caused due to the cancer eating into a persons any organ of a person and you say. So, pharmaceutical companies that converts their compounds into an injectable medicine, and then they apply the knowledge, that take that compound and they make it into a medicine that can be taken in orally or through injection, and then they sell it to the people who need that medicine

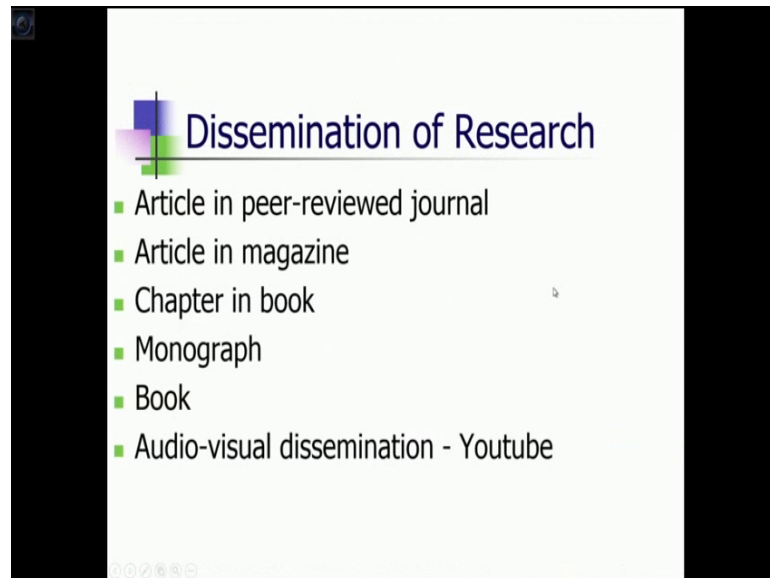
So, that knowledge is applied, and that in turn leads to better quality of life. Companies facilitate the application of knowledge there is funding for industrial development, and the government wants the knowledge to be applied and that in turn leads to a better quality of life. Now when the knowledge is applied then after applying that knowledge you realize that there are still some gaps, there are still some gas that need to be filled there are still some gaps something that needs to be addressed.

So, if that you understand only after a part of the knowledge that you have generated is applied and that in turn then you can take that back here, and that goes back into the funding and the stimulus for research and development the reasons for research, and development



So, that is how this whole cycle works? And that is how you disseminate your research results.

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And how do you disseminate your research finally, how do you share the fruits of your labor you could publish an article in a peer reviewed journal, you could publish an article in a magazine. So, here I do not know how to pull that other stuff out anyway, I will just use this you could publish an article in a peer reviewed journal, you could publish an article in a magazine, you could write a chapter in a book, you could bring out a monograph you could write a full book or you could disseminate the fruits of your labor through YouTube.

So, this is how this is what research writing is and this is what it helps you achieve, we do not have time for much else at this point we will stop here, and we will continue the discussion about research writing, in the next class I will tell you over the course of the this course,

I will tell you the differences between these methods of dissemination of research, but we will stop here now. And we will continue this discussion in the next class with more information about, what research writing is how you can apply it and how you can actually start writing your documents so.

Thank you very much for listening.