

J. Richardson Johnson

Oral History

Kate Hagenbuch: This is Kate Hagenbuch interviewing Rich Johnson on November 11, 2009 for the Engineers Club of Dayton Foundation Dayton Innovation Legacy project. Today is Veteran's Day so I'll start, Rich, by thanking you for service.

Rich Johnson: You are certainly welcome. [laughs]

KH: Rich was a pioneer in long distance learning with many years with AFIT in the Engineering school.

RJ: Well, the civil engineering school.

Ok. Rich, what is your full name?

KH: RJ: Joseph Richardson Johnson, Jr.

KH: And when were you born?

RJ: The sixth day of May of 1922, and there's three living Joseph Richardson Johnsons but that's the end of it because the youngest one has four daughters... so there'll be no more.

KH: And how old are you now?

RJ: 87, I think.

KH: Here is a photo of you at three years old--

RJ: All right!

KH: --and there you are playing with the telephone at three years old.

RJ: Well that was the start of the distance learning course. [laughs]

KH: What are your earliest memories of telephone, telegraph types of communications?

RJ: You mean used to teach or what?

KH: No, your earliest memories of dealing with telephones. What does this picture...

RJ: That was just some set-up in a commercial photographer's place, nothing special.

KH: Ok. Do you have any particular childhood memories of telephone, telegraph, anything like that?

RJ: No, just that it was a little more cumbersome device than it is now.

KH: Well, let's go on then. You studied geology at Miami University, then you became a Navy Meteorologist. How did you become a teacher?

RJ: Well, I wasn't for a long time but then when I got with the insurance company in Columbus, Nationwide, it was Farm Bureau at the time, when I got with them a number of years went by and I was just working my way up like any other man in a gray flannel suit. One day a neighbor came to the door and said that their head __ was looking for somebody else in training. And so I went over to apply to Ed because he is a wonderful person and sadly he had already filled the position. Then he said, but I think I can work one more person in. And he did. And so the three of us were in training and placement of 600 managers in the company and I was on the training side and another man named Wally Buya was on the placement side of the thing. And then there was a management appraisal system and I was on that side of that one. And it was an annual appraisal. Then we traveled out to the various, I think, thirteen regional offices, going on down to Carolina and up to New Haven, Connecticut. The area in between, we tried to space offices so there was no more than one day's mailing time from one office to the next. So that spread us over the eastern part of the United States.

KH: So, were you taking the classes to the other towns, how did that work?

RJ: Oh, definitely, yeah. Well first we had to define our body of knowledge and we got that down to twenty-some areas that we wanted to deal with--planning, controlling, setting objectives and knowledge of the customer that in our trade was called organized society, things that society does that bounce any organization around. Once we had that then I hired a professor from Ohio State to develop booklets about so thick [indicated 1/4 inch] on each of the things, and so we had a correspondence thing that could go back and forth. And then we went out to the various places and held two-day seminars, and then we went out and held other things as this information cascaded through the organization. So we had our subject matter, and we had it in mailable form, we had it in small group form, we had in where you're talking to a couple of hundred people, in different forms. So once we had that package and they had the three of us going we started to develop a reputation and people would come and visit and so on, we had kind of a model set-up that worked.

KH: Why do you think the company wanted to set this up? What was their--what was the advantage for them?

RJ: Like any company they had the hope of profiting by it. And then it was kind of a fad. There had been training forever in organizations and then this so-called management development was said to be a new idea. They liked to be in on fad things like anybody else. And they were getting rather decent results with it. It was a whole little system of three secretaries and three men and they got a lot of mileage out of it.

KH: Ok. So what took you from there to AFIT?

RJ: [chuckles] Doggone, I'm trying to think why did I come to Dayton?

KH: Were you recruited?

RJ: Oh, heavily, oh my goodness yes. Yes, that was why it was. Ohio State had a contract to deliver ten pounds of education down to Wright-Patterson. So they needed somebody--they had a guy and he hated students, and that wasn't one of the qualifications, and so he was caused to leave and then I took his place. And then it went on from there.

KH: So I guess you didn't hate students.

RJ: Oh, no, they didn't hate me and I didn't hate them. In fact we had a huge time together, and a lot of times when we moved to the same area where the Air Force Museum and all is, at lunch some of the students would go with me and we'd hunt for fossils on our lunch hour. If you're a westerner, you'd come to Dayton and you'd have all sort of fire-created rocks, which are rare around here, which is a limestone base. Then when you're in Dayton you'd pick up all these fossils and things and take 'em back west with you, and they have a high value for trading. And so it was a neat thing. They'd take these limestone fossils and go back west and they'd got a big deal on their hands, and so there was a lot of action of that sort.

KH" Sounds like you used your geology education.

RJ: Some of it, and we all kind of enjoyed nosing around, looking at the little things, collecting them and so on.

KH: What was your first experience of long distance learning?

RJ: Well, of course it goes back to Nationwide Insurance, and when the day came that they wanted to split the company into thirteen regions it had to be long distance. We didn't know we were in the long distance business but I had a series of little Volkswagens at the time, and just loved to load 'em up with notebooks for the students and charge off into the night. The whole deal at the time was, among the three of us who were in this department, "out of the state by sunup." And we meant it, load the car, Sunday afternoon with the rear seat taken out of the Volkswagen, load it up with all of these notebooks and then you go charging our into the night

and find yourself in West Virginia or Pennsylvania or someplace else... and the sun is just coming over the horizon. And it just makes you feel good. And that was kind of the start of our distance education, not knowing what we were doing, we were driving a car to these students that were out there rather than back where they were.

The students when they were brought into Dayton led a rather riotous life over in this hotel where they were housed. The head of our company was rather a strict person. "There will be no more of this stuff gathering in Day-- Columbus, you're going out where they live and teach!"

KH: He thought there was too much hotel hanky-panky going on or what?

RJ: I wouldn't say hanky-panky but I would say party, and a lot of high spirits, they were rather subdued when they came in in the morning.

KH: Was it in the Air Force Institute of Technology that you started to have courses that were done by electronic communication rather than taking the whole class elsewhere?

RJ: Yeah, I came down here in 1957 to Dayton. Starting the distance education in Dayton, it was listening to an Australian officer over at the club. He had a bicycle in the barn in Australia where it's so thinly populated over wide areas, and his teacher on a radio would say something like "what is two and two, Johnny?" At that point with the bicycle in the barn he would pump his feet like mad and create electricity and he would say "Four." And there's distance education!

I was reading about things like that and we got into the same thing here. We did it within a 48-hour period. It was a magazine over there on the table and I was reading it while I was waiting for Mary Ann, we were going out for dinner. And it says mail a set of your slides to whoever you want to communicate with. Have another set of your own, dial them up on the phone at a pre-agreed time, and start talking. Of course, we all knew each other anyhow, there'd be a certain amount of pleasantries and stuff about the weather and then you get down to business. It was pretty fast, and away you go. They'd put on a slide and you'd know what slide they'd got on and you talk through it. They were confined to probably 45 minutes was the maximum length and 15 would be the shortest length.

KH: What made it successful?

RJ: I guess that we all knew each other well, because we'd all worked in Columbus before we broke out into these separate places and we were always glad to see each other. It was a tight little group of 600 people.

There were certain talents involved. Our boss, Ed Artery, he was brilliant on the transfer an idea from one head to another. He exposed the other two of us to

different experiences that helped us along. We spent a good deal of time, well I did at the University of Buffalo and up at McGill in Montreal, with a man named Nathaniel Canter who had a thing called the teaching-learning process. That Canter was a hero of mine, he was a huge one. In fact when Nat died I figured, well, McGill University needs somebody to replace Nat and here I go! So then I went up there fourteen different times, leading a one-week seminar.

KH: Was this for the Air Force?

RJ: Oh no, this was for me. That's a deceptive thing about my life. I always had at least two things going for me at one time. Like I'd be employed by the Air Force, but I'd take vacation days and go to Canada on my own and teach for McGill and do a lot of other stuff on my own, and a lot of times I'd be teaching here 'till say three o'clock or so, and then get in the car and go to like Toledo, places in Pennsylvania, or down in Louisville and do an evening talk, something like that, and turn around and come back. I had little yellow Porsche with headlights that could see through stainless steel, and you know, you hit the road in that thing, go give a talk some place and one night on the ice up in Michigan in my little Porsche I got thinking, why am I doing this? The kids are through college; I don't need to do this stuff. There's a model of my little Porsche over there by those flowers--yeah, that's my little hummer. It had a back trunk and a front trunk, so you could pack a lot of stuff into that. In fact one time at our coffee shop, the door was open, and I heard a student calling home and his father had just died. So when he finished the call I said I'll take you to the airport. And so we put his stuff in the back trunk and took off for the airport and then we come to the gate of Wright-Patterson. I knew the guard was going to stop and have me open my trunk. So his gear was all back here, and he had a fair amount of it, and so I popped open the front trunk and the guy looked in, it's empty as can be, I put the drunk back down and drove him to the airport and I just loved it. That's my little gesture to authority. That's a magnificent little car, the top came off and fitted under here, and Mary Ann and I drove it to the west coast, and one I got through Nebraska. Counting a prolonged gas stop at an average speed of 80 miles an hour with a crosswind, that little hummer could move. It was a sweet little car. [Puts down model finally] Oh my, it was a sweet little car.

KH: You practiced Judo.

RJ: With the base judo club, yeah.

KH: Could you talk a little bit about judo?

RJ: Definitely, because I'll tell you, it ties into this of getting an idea into someone else's head. The general idea on judo is you gotta get them coming at you. You gotta have the momentum of the other person, you've got to induce it in some fashion, and if you do get them coming at you they teach a variety of ways of sending them to the moon from there. Flipping 'em one way or another. But if they just lay there, you can

kick 'em or step on 'em or something but that wouldn't be genuine judo. So the same thing applies in the classroom, you gotta get 'em coming at you. Once they have an interest in what's going on and they start to move toward you, then you can send them to the moon. So there's a definite connection there. They say if a student hasn't learned a teacher hasn't taught but the whole thing is to come to some agreement on what does it mean to teach. I found that what it means to teach is more backing away and getting them to come at you. That's the thing, if you can stimulate their interest, you got a going thing and that's what you have to have. The action has to be in the student, and a lot of guys want to be a silver-tongued orator. Now there's a place for that when you're trying to set a stage or trying to cover a lot of material in a hurry but when you really want to work with a student, the idea of "tell me more" is much more important than standing up there and tap dancing.

KH: What's a good way to engage a student?

RJ: The question, the question is the king of the classroom, that's for darn sure, you know, "and then what happened, and why do you think that happened, what caused this to happen," that sort of thing can take you a long way. I had a professor that I really liked. He was a quiet gentle man and he came into class one day and sat down with a newspaper and said, "it says in here that Joe with such-and-such union hit Bill with such-and-such other union in the mouth. Now, why do you suppose he did that?" And the discussion went on for 45, 50 minutes. Basically, he's just pointing to people and they're, "well now here's what happened, here's what I think happened," and that was the best educational experience you could get. And it was just this quiet thing of dropping the newspaper and saying, now why did that happen? That is education that is breath taking, that separates the men from the boys. There's a lot of boys in that business. "Hey, watch me tap dance," oh, no, that's the last thing in the world you need.

KH: How should an engineering teacher get the students engaged in engineering class?

RJ: There's a multitude of ways, such simple things as. Long ago, the use of the slide rule, when everybody's doing the same thing at the same time, and better come to the same conclusion, every one of you. Then today it would be the little button pushing devices that arrive at the same place. Or getting them out there in the field, for heaven's sake. That's a wonderful thing, how could we do this out here, you know. Talking that over, and where should we start on this, and why do you think that's an important point. Again you're constantly going back to the question. Again you're constantly giving the student the opportunity to be active, which is the essence of educating, or educating, or bringing forth knowledge in another human being. It is not standing up there acting like some orator. There's a place for all different kinds of education, but a lot of it to the eye of an observer wouldn't look like education really.

KH: In an earlier interview you said, lectures fill notebooks, dialogs fill minds, and real world experience under a good mentor fills hearts.

RJ: There you go, yeah, yeah. Whoever said that, said it right, exactly right. There's a long way from just the spoken word to getting an idea into another head. The student has to be the active person in this thing, and so for that to occur, the teacher in many cases has to be almost the silent partner in true educating or educating, which as I say is a lot different from having a grand gesture and tap dancing greatly.

KH: When you were using the telephone and slide shows to run courses you were engaging in multimedia presentations.

RJ: I didn't know that! Well, that's the semantics of the situation.

KH: That was multimedia. When you were doing that, did you envision 21st century communications technology?

RJ: Oh heavens, no. You're looking for anything you can get that'll work somehow, and trying to get the most distance you can out of the telephone or whatever. But I wasn't visualizing anything really; I was just trying to go to the max with what was at hand and what I could use. We used telephone lines that the Air Force Learn, and [General Simakidus \[?\]](#) came down and says, "we gotta get you your own telephone budget so that you don't have to stop teaching because somebody has a higher priority on the line than you do." So then we got a little more money and could make uninterrupted phones to the other person without somebody cutting in with a higher priority.

KH: Later, were you able to do any video or television?

RJ: Oh, sure, yeah. It was called the 20-20 series; it was 20 subjects in the 20th century or something like that. You could mail those out and people could, we had several sets and we had sets on the way, and sets waiting to be used, and sets being used and sent back, you had to have a lot of them to hit the different stages time wise.

KH: Were they videocassettes?

RJ: Yeah.

KH: So how do you get interaction? Watching a video is rather passive.

RJ: It is. There it's a triggering device intentionally short, to give a little jolt of information in a hurry so that you can turn off the doggone machine and get the people engaged by someone on-site who is going to say, "tell me more" and "what else" and "how did that happen" and "explain the things that produced this," the various Socratic methods of teaching.

KH: That's what we want to happen with this web site, with this project that we're doing now. It's exactly what we want.

RJ: Ok, well, that's good education. There's such a number of ways of doing most anything. If you get the right combination, you got a good thing going. And it's not having 20 or 40 silent students in a room, that doesn't mean a thing. It's getting them active, getting them coming at you, getting them thinking. That's basically what it's all about. There's so many misconceptions. You think that if somebody can lecture for 50 minutes it's a great work of teaching. Well, it's a great way of making sounds, but we haven't quite decided what real teaching is at that point.

KH: What do you think about today's world of instant communication, accessibility of libraries over the Internet, online college degrees and so on?

RJ: I love it, I absolutely love it. I mean, education should be as free and available as drinking water, for heaven's sake. We have this huge hurdle to get over and I have all the empathy in the world for people who want to certify that you know certain things, and have reached certain levels successfully. But a lot of education, it doesn't matter that you have, you get it from, a library should be a learning center in itself, with many modes of education, some coming in from the outside, some going out in the library and so on. It's a heck of a good source of education in a small variety of group ways, individual ways, massive lectures if need be. And I just love these different modes, and it's an interesting challenge to use the right combination of things to achieve a particular end, and as the variety increases, learning to use them, and to use them properly, and not just because they exist, is just a wonderful thing, it's absolutely, I mean you can have the best teachers in the world come into any classroom today through the various, let me call them, mechanical means, electronic means, whatever. And it's wonderful, it's like having a sprinter and a long-distance runner available to you when before you only had the sprinter or whatever. You can use such a variety of methods and that's just a wonderful thing. It doesn't have to be the teacher incessantly talking, that's for darn sure.

KH: You have a real passion for education.

RJ: Well, it's such a misunderstood thing, yeah, yeah.

KH: Tell us about the statue, can you hold it up?

RJ: [Holds up statue foot-high of weary man holding suitcase with coat over shoulder] The students I guess found this somewhere and apparently there's a lot of them of course, but this poor guy, I mean, that's supposed to be what I did and boy I will say it is a true likeness, arriving in the middle of the night with your suitcase and your necktie down, and hoping they don't make you sleep in the bushes. So they saved a room for you, but that's the way it really was, it was a good amount of sweat and fatigue involved as well as the work that people see. [Sets down statue] So that's

a neat little guy there, and I have feelings for him every time I look at him, I know where he's been.

KH: Is there anything else you'd like to talk about?

RJ: Well, just the driving nature of wanting to get across ideas to people is much more than a lifetime of work, thank the lord for Socrates, he started it out long enough to get a certain field of knowledge together and it goes on through guys such as Nat Cantor that I was talking about that taught for a number of years at the University of Buffalo and went on to teach at McGill, where, well I ran into him first at Buffalo, and then several times at McGill.

KH: Thank you so much.

RJ: You are so very welcome.

Mark Martel: I had a couple questions.

KH: Ok.

MM: I'm curious, as I understand it you taught business classes, essentially at the Air Force Institute of Technology. What were the students like, or what did they use that information for?

RJ: The students almost entirely, aw heck, I can't say that, but most of the students of course were adult, and in uniform, and those who weren't in uniform were rather seasoned civil servants, and the groups were usually twenty people or less. They'd be together from three weeks to maybe four or five in my case. In the case of other people they could be there for half a year, so, like the class I went down to be in charge of, ran six months in the classroom and three months for research and then they graduated. The tables they sat around were designed to encourage communication, where there was lot of time face to face across the table. A lot of discussion time. Did I answer?

MM: I guess, I understand Wright-Patt has the Logistics division, I'm wondering, we don't always think of the Air Force as being in business, but how did--

KH: How did business relate to the Logistics school?

RJ: Oh, ok, well they are both pretty much the same. And the same array of ideas applies to both of them. Both of them involve thinking into the future and considering factors that you know, and what you don't know about the future, and planning and then bringing together the materials and stuff that you gotta have, getting your act together or organizing, and then directing, which is the great variety of ways of letting people know what is required now and then coordinating, and oh, that's a massive thing, be it logistics or be it the insurance company I worked for or

whoever. This thing of keeping people approximately together, I mean it's very much like herding cats. It's a difficult thing. Then controlling, knowing what you want, knowing how you're going to measure it, knowing how that measure can be turned into feedback to make these little corrections and keep you on course, whether it be logistics, or whether it be insurance or earlier in my life I worked in a drop-forge factory, which is one reason I can't hear very well. The same general ideas apply to making wrenches in a drop-forge factory, which sure is a dirty shirt and pounding noise outfit, as in an insurance company where you may hurt yourself with a pencil sharpener, or I worked for Sherwin-Williams paints, and the same stuff there, and I guess it's the same stuff in living your life, you've got to figure out what's going to happen next and how you're going to deal with it, and you've got to assemble the stuff, just like you've of you're going on vacation you've got to pack your bags, and don't pack them so full you can't move. It's similar stuff, and then you're dealing with the same factors, you're dealing with the society and the objectives, and the policies and the procedures, and you're using similar sets of skills. The skill of questioning, listening, rapid reading--I wrote a booklet on rapid reading. All those things fit together and they are like the spices on the shelf, and you can put them together in different combinations to achieve different things. But there's times you listen, and times you question, and the longer you live you figure those are really important things. And there's times you're in a hurry, and so you get into lecture mode and take off at a high rate of speed for a short time, hopefully. But see there's a lot of business stuff that applies in military fields, same stuff applies to Sears & Roebuck; both are big logistics organizations. Thank heavens there's just a lot of common modes. I've worked with shoe companies and bankers and Air Force people, Turks, a great variety.

MM: Could you say a little bit about your travels teaching? You mentioned Turkey.

RJ: Oh yeah. We were at our dining room table, this Air Force major shows up and says my job is to get Rich to come to Turkey, and Mary Ann sitting there says that my job is to keep him right here. Well, Mary Ann lost that one, because I thought it was the right thing to go over there. That ended up, I went three different times for about six weeks each time in three different years, and got to know a number of Turks rather well. And really enjoyed it, ah, they're a different, different group of people. Absolutely delightful, they live on this land bridge that people have been crossing for generations, and there's blue-eyed, blond haired Turks, and a lot of them, and there's others that look like Genghis Khan himself coming out of the steppes. And then, I got to see the development of that country.

MM: I guess the only other question I was curious about is, between distance learning and hand-on lecturing and such, how do you balance those?

RJ: To introduce something you probably need a lecture, but to get it to sink in you've got to get into a discussion of some sort. You really don't ever want to deteriorate to busy work, it's got to have some payoff that they can kind of see as

they're going through it. This stuff of saying, "and today we play with bean bags," no, sickening. So there's got to be a point or a payoff to the whole doggone thing. Boy, there's so many ways of getting to them anymore, it's just wonderful, boy it's great, and the ability to mix talents and bring people from different parts of the--gee, you see it on McNeil Lehrer News Hour, a conversation like this between people where one of them is on the east coast and the other of them is on the west coast. Just as common as can be anymore. The ability to give enough background to get discussions started with means such as video in a hurry, and bring in experts if you want, who are not available all the time, by other means, that's great, I mean that's stuff that people couldn't do when the country was started. When Dayton first appeared here, whatever teaching had to be in the head of whoever was doing it and he couldn't get help, but a teacher today is surrounded with help, and the question's more how do I use the wonders that apply, rather than now what am I going to do that they're tired of the bean bags.

KH: The idea of an organized education system for a business really started in Dayton.

RJ: With John Henry Patterson. Boy, I suppose so, he was a wonder, he and Deeds both. I had the honor of being in the same elevator with Deeds one time. That was a big deal for me. Yeah, there's a lot of that started here.

KH: Ok. Thank you.

RJ: Thank you.

--End of interview--