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РАССЕЛ АКОФФ ОБ ОБРАЗОВАНИИ МЕНЕДЖЕРОВ

AN INTERVIEW WITH RUSSELL L. ACKOFF

Приводится интервью Р. Л. Акоффа (2002 г.) по случаю первого выпуска журнала Academy of Management Learning and Education («Академия менеджмента и образование»). Он подвергает критике многие бытующие положения о соотношении ролей преподавателя и учащегося с позиций их эффективности в образовательном процессе.

Ключевые слова: *образование, роль преподавателя, роль студента, обучение управлению организацией.*

Ackoff challenges much of current thinking about teaching and learning in terms of what is effective and what isn't when the ultimate objective is to improve the learning process.

Russell Ackoff is one of the pioneers in management education. With an undergraduate degree in architecture and a PhD in philosophy, Ackoff is one of the founders of operations research and systems thinking, linking science and business. Influential in management thinking for the entire second half of the 20th century, Ackoff has published 22 books and over 200 articles in journals and books, on a myriad of topics. His illustrious academic career has played out primarily at Case Institute of Technology and The Wharton School, University of Pennsylvania. Such is the breadth and reach of his intellectual contribution that the Ackoff Center for Advanced Systems Approaches at the University of Pennsylvania was established as part of the College of Engineering and Applied Sciences. Ackoff has consulted with more than 350 corporations and 75 governmental agencies in the United States and abroad. All have benefited greatly from his "out of the box" thinking and point of view.

Ackoff provides a particularly useful perspective for this the first issue of the *Academy of Management Learning and Education*. As you will see from what follows, Ackoff challenges much of current thinking about teaching and learning in terms of what is effective and what isn't when the ultimate objective is to improve the learning process.

Interviewer Glenn Detrick is currently cochairman of Educational Benchmarking, Inc. (EBI) and formerly Associate Dean of the Olin School of Business, Washington University. Detrick came under the influence of Ackoff when Ackoff was the visiting Busch Professor at the Olin School in the early 1990s.

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Detrick – Russ, the purpose of the new *Academy of Management Learning and Education* publication is to present theory, models, research and critical dialog that addresses the learning process and enhances the practice of education in the management disciplines. What thoughts do you have about this objective?

Ackoff – I think it's fine as long as it focuses on learning instead of teaching, because there is the implicit assumption in most educational institutions that learning is the converse of teaching; that an ounce of teaching produces an ounce of learning. *The fact is that teaching is the major obstruction of learning*. Most of what you're taught you never use and is irrelevant, and what you do use you've learned on the job, usually in an apprenticeship relationship. So the whole concept of education as being taught is wrong. Kids learn in school and some adults learn in university not because of the school or university, but in spite of it. People learn from others by following their curiosity, but they learn very little from courses. Certainly very little that is useful.

When I retired from Wharton, I wrote an article which endeared me to the faculty. The question was, "What are the contributions of business education?" I said there were three. The first was to equip students with a vocabulary that enables them to talk authoritatively about subjects they do not understand. The second was to give students principles that would demonstrate their ability to withstand any amount of disconfirming evidence. The third was to give students a ticket of admission to a job where they could learn something about management.

Detrick – What did the faculty say about that?

Ackoff – Most didn't like it, of course. They really think that what they are teaching is relevant, but it is not. Much of what is taught was relevant at best for organizations between the two world wars. But most business school faculty members don't know what the hell has happened since then. There's no general understanding in business schools of the nature of the changes that are occurring in thought and the environment and their significance.

Detrick – What do business schools need to do to be more effective in focusing on the learning process and what students need? How do they need to change?

Ackoff – They don't change for two reasons. First, they're subsidized, and subsidized institutions are more interested in the source of their funds than they are in the people they serve. So they're not responsive to the needs of consumers, they're only responsive to the donors. And the big question is why do so many give money to universities. It's because they had such a good time when they were there, not because they learned anything. It's where they became an adult, they got away from home and it was a liberating experience. It was exciting and great; it had nothing to do with learning. So alumni give support as appreciation but not for being taught. We're going to have to get the universities to support themselves by satisfying customers, which means that they've got to react as if in a market economy.

The second is that you've got to get rid of tenure. When I was a student, the earliest age at which a member of the faculty in the department in which I taught got tenure was 55 years old. He had been teaching for thirty years and he had a maximum of ten years to go because of compulsory retirement at 65. Therefore, the university made a ten-year projection on the basis of thirty years of experience. That's fairly safe. Today, six years after they're hired, they get tenure or they're out. So now a 31 year old gets tenure and has forty years or more of commitment from the university. Many of these people get secure and retire intellectually at middle age; they stop thinking. So to answer your question, we must get rid of subsidy and tenure if we're going to get these institutions to change and improve the learning process.

Detrick – Do you think in our lifetime we'll see significant reform of the tenure system?

Ackoff – Well there are some places that have done it. I believe academic freedom is important, but I think there are better ways of protecting it. Courts can protect it. Tenure has become a protection of incompetence and that's the problem. It's a very difficult problem and I don't see it being solved any time soon. I tried to do it when I was at Wharton. I'd written an article attacking tenure and the local AAUP chapter attacked me. So I challenged the chapter to a test. I said let's hire a research firm acceptable to both of us to investigate the following question – does tenure protect incompetence more than academic freedom? If it turns out it protects academic freedom more than incompetence, I'll pay for the research. If it turns out the other way, you'll pay for it. Well, they wouldn't take me up on it. They said it was easy for me to criticize tenure because I have it, but I said, "No I don't." They said I had to have tenure because I could not be a professor at the University of Pennsylvania without it. But, the day I got tenure I gave the dean an undated resignation so that he could

put me out any time he wanted, simply by putting a date on it. Many faculty members came around, slapped me on the back and said what a great thing I had done. I said to my colleagues, "Why don't you do it as well?" Nobody did. They wanted the security. The alternative, of course, is to be secure because of competence. That's what we need. To have faculty who are secure because of their competence, not tenure.

Detrick – If you look at management education from a learning point of view, how could management education effectively reinvent itself? What are the elements you think would be included in an idealized plan for management education?

Ackoff – I think the critical thing is that until the university operates with an internal market it's never going to reinvent itself because not only is the university subsidized, but each department is subsidized. Set up an academic program or a research program as a profit center. If departments are pools of faculty defined by their expertise whose only income comes from the selling of faculty time to programs, then universities, colleges and departments would have an incentive to respond to the marketplace. If a faculty member can't sell his time to a program he becomes a liability, he or she is not re-appointed. This is the way the rest of the world works, why shouldn't it work in an academic setting?

One of the things I did at Wharton was I made every professor in my department a profit center. They wouldn't let me fire anybody so we had a rule that there was no increase in salary if the faculty member was in the red. That completely changed the behavior of faculty. Otherwise, a senior faculty member wanted one seminar a year with eight students. They discovered they needed five courses of 37 students each to break-even and all of a sudden they all wanted the freshman courses with 150 students so they could get their seminar. It completely changed faculty behavior. For the first time, incoming students were exposed to the senior members of the faculty instead of graduate students. What I'm saying is that incentive systems have to effectively take into consideration the needs of students, not just what faculty think they would like to do.

Detrick – You have always been a strong advocate of experiential learning. Is this important for both students *and* faculty?

Ackoff – Yes, for both in an apprenticeship relationship. I was originally an architect. In my opinion, the US only produced three great architects with international reputations: Henry Hobson Richardson, Louis Sullivan, and Frank Lloyd Wright. Each was a student of the other before universities started to teach architecture. Universities started in the early part of the last century and since then we have never produced an architect of the same stature. Apprenticeship is the most effective way of learning anything. I was incredibly lucky as a

student. The war interrupted right after I started graduate work so I spent a lot of time during the war reading and writing. When I got back it turned out I had done all the reading for all the graduate courses and the department told me, "Look you're an embarrassment, we can't have you sitting there because you've read all of this stuff, you know all of it. You teach the course and we'll give you credit for it," and that's how I went through graduate school, teaching most of the courses I had to take for credit. That's where I learned that although being taught is a lousy way to learn, teaching is a marvelous way. We've got schools upside down. The students ought to be teaching. What at least some of the faculty know is how to learn.

A student stopped me in the hall one day and said, "Professor when was the last time you taught a course in a subject that existed when you were a student." What a good question! Well, I had to stop and think. I started teaching in 1941, then the war interrupted for four years. I came back and continued to teach what I had been teaching before. But in 1951 I moved to Case Institute of Technology. I moved out of the philosophy department into a new field, operations research, which we had to help create. Starting in 1951 everything I taught was something that didn't exist when I was a student. So I explained this and the student said, "Wow!" "You've had to learn a lot." I agreed. He said, "You must be a pretty good learner. It's a shame you're not that good a teacher." He had it right, you see. The faculty knows how to learn, not to teach, therefore, what they ought to be doing is encouraging and facilitating the learning of students; not teaching them, but giving them an opportunity to teach so they can learn and do so by other means than by being taught.

I'm a Fellow of the American Statistical Society yet I never had a course in statistics. At one point I attended a celebration of the American Statistical Society in which they invited the four people its members thought were the major contributors to contemporary statistics in the United States. Turns out that not one of the four had ever had a course in statistics. Isn't that amazing! Contribution and innovation in a field is much more likely to come from outside than inside. There's an old saying, which is wonderful – you can't think out of the box if you're in it.

Detrick – There's so much focus in management education on content that……

Ackoff – Not on learning.

Detrick – Yes, and not on learning. I know elsewhere you've said that if you can teach students how to learn and want to continue to learn then you've made a contribution.

Ackoff – There are serious errors both in the method and the content of higher education when one looks at "teaching and learning." Take our proclivity to give examinations. Most examinations are an abomination for two reasons.

First of all, they're not modeled on how people are evaluated in the real world. People are evaluated by what they can *do* with what they know.

Detrick – Performance.

Ackoff – Yes. And secondly, tests are taken in isolation whereas in the real world if I ask you to solve a problem to which you don't know the solution, I expect you to get all the damn help you can find. It's your ability to use resources that is important in the real world, not what you can remember to spit back on a test. So our method of giving examinations creates a wrong model. Thirdly, if you're really committed to learning when you get an examination back and you made errors, there is an opportunity to learn. You ought to take the examination again a week later to see if you've learned what the right answers are. Exams ought to be for learning, but they aren't. They are for reporting "current level of retention," which is useless down the road. Finally, in our system of examinations you learn that the thing to do is to give teachers the answer they want. And this happens all the time in management. Whenever I work with a group of executives below the CEO on a problem given by him or her the first thing they want to know is, "What does the CEO expect; what's the right kind of answer?" No wonder there is so little managerial creativity in problem solving.

Detrick – In the last ten years or so a number of business schools have attempted to make more effective use of active or experiential learning, getting students out into the workplace on real world projects, working with corporate people to give students much more of a sense of what they will face when they get out of school. Do you think these are steps in the right direction?

Ackoff – They are absolutely steps in the right direction, but not nearly enough of it is happening. What is happening is at the edges with a few elective courses and with a few interested faculty members. At most places, considerations of the effectiveness of the learning process – and effective pedagogies to achieve it – are not part of the core consideration of the faculty. And that's the root of the problem.

Detrick – Peter Drucker has recently said that universities in 30 years won't be what we know them to be today. Do you think he's right about that?

Ackoff – I think he's dead wrong.

Detrick – Why?

Ackoff – As Drucker indicates, universities were created in the twelfth century. They haven't changed very much in the last nine centuries because they're subsidized and because of a tenure system that is antithetical to change. The content changes but the message doesn't — and it's the message that's fundamentally wrong. To the extent that there is a focus on the teaching/learning process at all, teaching is the focus, not learning. It's based on the assumption that a group of faculty know what people are going to need later in life. You

know that 65% of the graduates in engineering do not practice engineering within 5 years after graduation. Thirty-seven percent of PhDs never practice in the field in which they got their PhD. So sitting around talking about what they ought to learn in school is nonsense. What they ought to learn is how to learn.

Detrick – All the advancement in technology puts us in position to do a better job of teaching and learning. Or does it?

Ackoff – Technology is not as important as people make it out to be. They made a terrible mistake in early stages of development with what was called "computer assisted instruction." It's absolutely degrading and demoralizing to a person to have a computer trying to teach them. They got the damn thing backwards again; being taught is a lousy way to learn. If you give the students the job of teaching the computer how to do something, then they can learn. So this computer assisted instruction has been terrible. Using a computer as a resource in learning is okay, but not using the computer as a teacher.

Detrick – Are there bright spots in management education?

Ackoff – Yes, there are effective individuals around, but not effective institutions. There are people who have got guts and they're educating in their own way and they're good enough to be able to get the freedom to do it in ways that are productive and developmental.

Detrick – Is Jack Welch one of those people who made a contribution to management practice or do you think what people say about his contribution is overstated?

Ackoff – Crotonville, which is his educational center, is an interesting center; it always has been. It has always been innovative, but over time it has become more conformist. Corporations, in aggregate, are now spending a third more than all the universities and colleges in the United States are spending on education. The terrible thing is that they are just doing the same damn things the universities are doing. Usually, however, the circumstances are better in corporate education units because people have more time to interact and there is a focus on real problems. People learn more effectively when they are focused on real problems.

The positive thing about executive development programs is that students/executives come from different companies and learn from each other more than from the so-called teachers. That's what they remember. They form associations and keep in touch with each other. Ask participants what they got out of these programs and they rarely respond that it had anything to do with the *content* of the program.

Detrick – Business schools like to talk about the usefulness of cases as a teaching pedagogy. What do you think about using cases as a teaching vehicle?

Ackoff – A case is a terrible distortion of reality. It is like learning how to box with one hand tied behind you, then you are suddenly thrown into the

ring with somebody who has two hands free. You don't know what to do. You couldn't box against a two handed person with one hand, but that's what cases do to/for you. A problem is an abstraction. It's extracted out of reality by analysis. Reality consists of complex sets of interacting problems, not isolated problems. So when we deal with a problem we're already dealing with an abstraction — and now somebody comes along and deprives you of the information needed to formulate the problem. This converts the problem into an exercise.

An exercise is a problem for which the person given the problem to solve is deprived of the information required to formulate it. It doesn't happen this way in the real world. Case studies are exercises. The most important thing in the real world is being able to differentiate between what's relevant and what isn't. The case-study formulator already does that for you. The person who wrote the case study eliminates what they think was irrelevant. I have had cases written on studies that I have done, that I published. The distortion is absolutely unbelievable. It's nothing like what it was like in the real world. So I don't think teaching cases is an effective pedagogy. Get students out into the real world where they have to formulate the problems and sort through a myriad of relevant and irrelevant information to do so. They need to be thrown into a mess and asked to work their way out of it.

Detrick – You define "mess" as a technical term. Define it for us.

Ackoff – A mess is a system of problems. That means you have to understand what a system is. A system is a whole which is defined by its function in a larger system. It consists of essential parts, each of which can affect the functioning of the whole, but none of which has an independent effect on the whole. When you take a system apart it loses all of its essential properties and so do its parts. An automobile is a simple system you're familiar with. But if you disassemble the automobile, it loses it function, its ability to carry people from one place to another in privacy and under their control. And the parts lose their function. When you take the motor out of the automobile it can't move anything, not even itself. Furthermore no part of a system can perform the function as a whole.

In management education we act as though reality is divided into disciplines and this is absolutely false. There is no such thing as a marketing problem or a financial problem or a production problem. These are points of view, not kinds of problems. You can look at problems from many different points of view. The question is what's the most effective way to look at a problem. We deal with biological systems, which we understand to some extent, very differently than we deal with corporations. For example, when you get a headache we don't do brain surgery. We swallow a pill which contains a chemical that dissolves in our stomachs, then it enters the blood stream that carries it up and

deposits it on the pain center of the brain. This is effective because someone understands the way the system works, the interaction of the parts. In a corporation if a guy in marketing sees sales goes down in the last quarter he says, "Uh, oh. I've got a marketing problem." He tries to solve the problem by manipulating the variables under his control. That's like trying to do brain surgery in the previous example. In my experience, over 90 percent of the problems management confronts are better solved someplace other than where they are identified. Systems consist of interacting parts, but managers don't understand the interaction – partly because we don't teach it. We teach a course in marketing. Why do we do this? Because that is all a faculty member knows. The only thing that's important about marketing is how it interacts with production and finance and purchasing – and we never teach that. We teach marketing as though it's a separate subject. Our teaching does not match the real world and because of this, we are doing our students a disservice.

Detrick – Since we talked eleven years ago about the status of management education some schools have tried to move, at least conceptually, toward a more integrated curriculum, not offering just discipline based courses. Is this a step in the right direction?

Ackoff – Conceptually, yes. But in team teaching, do we still have people teaching their disciplines or do we have a true integration of the disciplines? Interdisciplinary courses are not the answer if they just yield a different format for disciplinary activity. The disciplines are already artifacts. When you break management down into the disciplines there's no way of putting it together again into a meaningful whole. We need to stop talking about marketing and production and finance and personnel as separate things. That's why the difference between analysis and synthesis is so important. With analysis you're always breaking things up into parts and looking at the parts separately. In synthesis you're always trying to put things together into a whole. We need to teach synthesis, not (just) analysis. The way to learn about a corporation is to design one. The way to learn accounting is not to take a course in accounting but to design an accounting system for a corporation. Design a production system, design a marketing system and there you learn you can't design marketing independently of production. Where you locate the production facilities, what their capacity is, what the product lines look like, all of this depends on marketing, but marketing depends on a lot of other things. And the interactions become apparent when you design.

Anheuser-Busch has what they call a Strategy committee. It consists of the vice presidents who report to August Busch. I would bet other people attending a meeting of this committee that at the end of the meeting they would not correctly identify the function of anybody in the meeting, except the CEO. You won't know who is in charge of metal production, who is in charge of enter-

tainment, who is in charge of beer, who is in charge of international selling, and so on. You will not know in that meeting because they're not operating as disciplinarians. One thing August learned very early is every vice president in his committee must be a general manager of the corporation and they have to think of the whole.

Detrick – So the most effective teaching of management has got to come from a general management perspective and part of the problem is that the whole system of training people to be faculty members doesn't train them to do that?

Ackoff – I spent five years studying architecture. On my first job I went to an architect's office where my first job was to design a new front for a neighborhood movie theater. I didn't know how to do it. In school I designed a new headquarters for the United Nations, crematoriums, a port facility and all kinds of major buildings. I had not been taught to do what I was confronted with on my first assignment, to design something that could be built from the drawing I prepared. Later on I bought a lot and had to build a house that I designed. I learned more architecture designing a house than I did in five years of architecture school. Management education ought to begin with the creation of a corporation. Pick a product. Have students design the new company and they'll learn more about production, marketing, finance and so on than they will by reading textbooks. And it's transferable to other products because what they are learning is how to design and what a corporation is, not what its parts are taken separately.

Detrick – One area I think management education avoids, probably because faculty don't know what/how to deal with it, is creative thinking. What is it that stimulates creative thinking and thinking outside the current construct?

Ackoff – The removal of all constraints. All creativity begins with the breaking of an assumption that you normally make and exploring the consequences of doing so. That's all it is. The creative act is always an act in which you identify an assumption that you have made which prevents you from seeing alternatives, removing that assumption, and exploring the consequences. Is this an important concept in the education of a management student? I would hope so. Do we teach it in management education? No. Why not? Because the faculty don't know how to do it. That's a problem with most business curricula. The curricula are designed by a bunch of faculty who want an opportunity to tell people what they know, rather than putting together a design that helps people understand how to be effective in a managerial position. That's another part of the problem with the educational process. Schools kill creativity because they teach students to give answers that are expected and an answer that is expected can't be creative.

Detrick – Lets talk for a minute about some of the stakeholders of management education. How can business schools better serve these various constitu-

encies more effectively? Let's take undergraduate students. Many of the more prestigious business schools don't have undergraduate students.

Ackoff – I think that's right. I don't have any very strong feelings about it. I don't think undergraduate business education is wrong. I think that the lack of a liberal education is wrong. I think that kids coming out of high school need to learn something general and become interested in learning things other than business, and this can be a great adventure. I think the British system is better than ours. Their managers are broadly educated people and ours generally are not. Most American managers are not well rounded. So I think an undergraduate program should be broadening, specialization should come at the graduate level.

Detrick – How about doctoral students. Do you think they are generally in a position to make informed career decisions?

Ackoff – Most graduate students do not "know what they want to do," any more than do undergraduates. What they end up doing is a function of opportunities that present themselves along the way along with their skills and interests. In my department at Wharton I didn't have a single person on the faculty who had a degree in business. Out of over 20 faculty members, not one had a degree in business. They all started off thinking they were going to be a mechanical engineer or a physicist or a chemist or a historian, but that's not where they wound up. That's why you need a general education – because you never know what opportunities might come about. Current doctoral education that pushes an individual deeper and deeper into a discipline in order to do increasingly inane research does not serve such students well.

Detrick – What, in your view, is the purpose of a university?

Ackoff – The purpose of a university – and I'm talking here about what it *is*, not what it should be – is to provide faculty members with the quality of work life that they want. Teaching is the price they pay and like any price, they try to minimize it. You can't understand a university if you think it's about education. It's about providing the faculty with a chance to do what they want to do. Unfortunately, I think this definition helps you better understand the behavior you see in a university than the traditional definition that focuses on education.

For a while I collected evidence to support this thesis. When I was at Wharton I spent two years as a faculty representative to the College of Engineering. At the time every college at Penn had a representative on the senate of every other college. So for two years I sat in on engineering faculty meetings. It was so damn boring that after the first couple of meetings I started keeping records on the topics discussed. And in two years I found that the word student only came up once. In fact, the meetings had nothing to do with students. They had to do with benefits, academic freedom, teaching loads and schedules and so

forth. I guess that's what you would expect if the purpose of the university was to provide a comfortable environment for the faculty. It was about the faculty, it was not about education.

Detrick – The cynic in me used to say that the reason companies recruited at top business schools was not for the faculty, but for the admissions office. Good schools attract good students; and the faculty don't screw them up too badly. What do you think about this hypothesis?

Ackoff – Well, that's a wonderful question that I once had an argument with the dean at Wharton about. I said, "Suppose you took the Wharton student body and sent them to community college for an MBA and took the community college students and brought them to Wharton for an MBA. If you are now a corporate executive, who would you be more inclined to hire? He smiled and agreed he would go to the community college. I guess that supports your view. The dean said that in the long run the reputation of Wharton depends at least as much on the quality of its students as on the quality of its faculty. They interact. The faculty's reputation draws the students. The best reputation does not necessarily mean the best quality, it means it generates the most desirable job offers.

Detrick – Well, any other thoughts for the good of the order that we didn't talk about? Things you think would be of interest to the people who are going to read something like the Academy of Management Learning and Education?

Ackoff – Just reiterate that to think creatively about learning, every single aspect of the educational process ought to be questioned and systematically denied and the consequences explored. When considering how to improve learning, get rid of curriculum, get rid of courses, get rid of examinations, get rid of accreditation, get rid of degrees — and what would education look like? Compare the potential of this with what we currently have, from the point of view of stimulating effective learning. Until you do this, you'll never have transformation. That's the difference between transformation and reformation. Reformation is keeping the current system and modifying its behavior, with modest change. But given the potential we are not now realizing, I would argue for creative transformation that focuses more effectively on learning.

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