

Beyond Study Skills: An Innovative Approach for Increasing Retention and Improving Grades

Host: Donna Milgram, Executive Director, Institute for Women in Trades, Technology & Science

Presenter: Dr. Donna O. Johnson Mackey, Founder & President of Guaranteed 4.0 Learning System

Interview Transcript:

Donna Milgram: Hello and welcome to the eight session of the *STEM Success for Women Telesummit*. My name is Donna Milgram, Executive Director of the Institute for Women in Trades, Technology and Science. I'm so excited you can join me and our very special guest, Dr. Donna O. Johnson Mackey today.

She is the Founder and President of the Guaranteed 4.0 Learning System. She developed this systematic framework for herself while pursuing a BS in chemical engineering from the University of Texas in Austin. With a PhD in Cognitive Science and over 20 years of practical experience and systemic learning, Donna O.'s Guaranteed 4.0 Learning System empowers students and faculty with accelerative learning and development. Welcome Donna O. and thank you so much for joining me for this *STEM Success for Women Telesummit*.



*Dr. Donna O.
Johnson Mackey*

Dr. Donna O. Johnson Mackey (Donna O. Johnson): Thank you.

Donna Milgram: Donna, it's such a pleasure to have the opportunity to interview you. As you know, I first learned of your work years ago from Mary Anderson-Rowland, who is the Director of Academic Success Programs for the school of computing and engineering at Arizona State University. **Her scholarship students achieved a 90% graduation rate for two STEM academic scholarship programs she ran, one of which was for community college transfer students.** And she attributed that kind of successful retention rate and also, there was a high rate of those students going to graduate school, to the Guaranteed 4.0 System.

The graduation rate for her students in her program was actually 40% higher than for the school of engineering as a whole, and her students were female and the majority or minority in first generation attending college. Her scholarship students also had higher GPAs than the students in these majors as a whole. What really captured my attention was that she had had studying skills, time management as part of her curriculum for the students prior, but it wasn't until she added the Guaranteed 4.0 System that her students started having this kind of success. As a result of your work, I added time management as required element in our WomenTech Educators Training, Women in STEM retention plan template, and I recommend Guaranteed 4.0 to the colleges I work with on retention.

I like to joke that even though you and I have the same first name, we're not related and our organization has no financial interest in your program, but I am a believer because of the successful outcomes colleges have reported and I'm just so happy that our listeners today will be able to hear from you directly about what works. **I thought you could start out by just talking a little bit about why you created The Guaranteed 4.0 Learning System.**

Donna O. Johnson: Well, thank you again for this opportunity to share with your listeners. The system itself was actually born out of necessity. As you mentioned, my undergrad in chemical engineering was at the University of Texas at Austin and I'm number four in the family. My father died when I was one and we're kind of stair step. So, my mother had four people in college over a span of eight, nine years. By the time I got to me as the baby, the money was gone. I was working for the Dean of Engineering, managing the tutoring program for the college and he said to me, "You know, you just got elected this National Chair of the National Society of Black Engineers. That's going to be about a 20, 30 hour a week commitment. You're working for me 20 hours a week. I think you need to quit your job because I don't want your grades affected."

I shared with him, based on my family situation, that I needed my job. And he said, "Then you need to have a plan." So, it was born out of necessity in the sense that I just went home and wrote down, "These are the three things that I did as a freshman that yielded easy A's." I said, "I'll do that." I got straight A's that semester as a senior in chemical engineering and the Dean said I could keep my job. I shared it later informally with a couple of other students that were having trouble. It worked for them and then when we had a National Leadership Conference I did an academic excellence workshop and at the end, kind of on a whim, I just wanted people to believe me that it would work so I dared them to try it.

I said, "If you do these three things and you don't make straight A's, I'll give you \$100." So, that's actually where the name, Guaranteed 4.0 Learning System, came from. So, it's not very gimmicky. It's very authentic and it worked for them, I didn't have to pay and it's 25 plus years later and I've never had to pay the guarantee and students are experiencing success all over the world.

Donna Milgram: Wow. What an empowering story, both about yourself, but also the many students' lives you've touched. I noticed on your website there's a long list of colleges, both at the two-year and four-year level, that have used your program and some have actually incorporated it as a mandatory part of their programs. **Why have these schools utilized Guaranteed 4.0? There are a lot of study programs and systems out there to help improve student outcomes. Do you have any numbers that demonstrate that Guaranteed 4.0 System really works?**

Donna O. Johnson: Absolutely. We have numbers and probably the best numbers that I could share with you, part of the learning system reteach people how to read in a way that they can remember what they read. The average person retains 10 to 30% of what they read or hear. When you use our method of reading, you retain 80 to 95%. And we have seen studies over the years, whenever we have the opportunity to work with a school and do what we term a semester-long project, where we see the students about once a month. The average GPA for those students has always been above a 3.0. Then about 15 years ago, it was always above a 3.5 and our averages right now are running in the 3.8, 3.9 range.

So, we're having a lot of success. The numbers really speak for themselves, but why did the schools invite us and utilize the program? Quite simply, it's a very systematic approach to learning. My undergrad is in engineering, so I still consider myself an engineer. I identify the program as an industrial engineering problem solved. For example, we want to increase GPA, but at the same time decrease time on task. We do that by utilizing what we know about how the brain actually learns. So, it's a brain-based learning framework that not just guarantees a 4.0 GPA. What we really guarantee is learning.

Donna Milgram: I have to tell you, it just hit me, I need to go through your program. I mean, I'm constantly growing and learning and if I can improve my retention rate that much through what I read, I think that would help me to help others even more so. I know one of our staff members who went to graduate school has already utilized your program, but I need to do that as well. **Can you talk about what the key elements are of the Guaranteed 4.0 Learning System for our listeners? What do students learn to boost their success in the classroom?**

Donna O. Johnson: As I mentioned, we reteach students how to read and that's absolutely the foundation of the program. We term that Bullet Point Reading. If students read in our method prior to going to class, we guarantee that they're already at 3.0 level. Now, we want you to utilize the rest of the program to get to the 4.0. So, we also train them how to utilize classroom instruction time, how to utilize the insight of professor, how to analyze homework, because a lot of times students do the homework, they get the answer in the back of the book and they're excited that it's correct, but then the real question is why is this the correct answer?

When you delve deeper into the homework and analyze it and focus on principles and concepts, that's actually where critical thinking starts to develop. So, the real beauty of the program is that it actually, not only does it cut study time by utilizing the latest research in cognitive science, but it also helps students develop critical thinking skills that they can use not only at this level, but as they prepare for four-year institutions, grad school, corporate America and beyond.

Donna Milgram: Why is your learning system so important in the STEM world? Obviously, you started out with your focus on engineering for yourself and then you brought it into STEM overall. **I see now it's used in all kinds of educational programs and career pathways, but why is it so important in the STEM world?**

Donna O. Johnson: Actually, within the STEM world there are a lot of myths and misperceptions out there. By the third grade people make a decision whether or not they think they can do math and science, or is math too hard. With that perception that the math and science class is a really hard, what happens is that you have chemicals that are released into your brain and the chemicals either help you learn or they hinder learning. So, if you believe something is going to be hard, then it releases chemicals that actually help make the subject matter hard, but if you think something is going to be easy, it releases chemicals to the brain that actually help you process the information such that it is easy.

What we find is that success breeds success and we borrow a formula and modify it from a Boston efficacy group that basically says, "Confidence plus effective effort equals success." We want the students first to believe, yes, I can do this. So, the first part of the seminar is really to break down those old myths and perceptions in terms of, "Oh, this class is going to be really hard." We break that down in the beginning of the seminar, then we give them the tools, the Guaranteed Three Steps, and we consider that the effective effort. So, again, confidence plus affective effort equals success.

Now, the other aspect of it is that professors also have, let's call them hidden expectations, and if you have not worked with people that are perhaps different than you, different gender even, and you have not seen them be successful in certain environments, then subconsciously, you don't have the expectation for that person to be successful. We actually help professors deal with really hidden and unknown biases.

Donna Milgram: That is so interesting. I had not heard about the brain chemical research. I'm going to have to take a look at that, but what I can tell you is that there's so much research that for female students, they have gotten the messages and feel that they're not going to be good at math and science. That is the norm and they lack confidence and of course, we know overall in STEM, that confidence is an important predictor of success. So, it's interesting to hear that part of what your system does is reprogram that message for the students and as well as doing some reprogramming of the professors and instructors themselves.

Donna O. Johnson: Well, absolutely. If you don't mind, I'll share a story.

Donna Milgram: Please.

Donna O. Johnson: My first engineering professor told us that women and minorities should not be in engineering, "Women because it's traditionally a male field and should remain so, minorities because their brain structure is not such that they can handle the rigors of engineering." Now, my thought when he said that, "It's probably somewhat abnormal. That would probably make someone who happens to be a woman of color feel really bad about the situation and then think 'I'm not going to do well in this class.'" It actually had the opposite effect for me. I felt sorry for him because my mother, who is my hero, taught me that all prejudice was just ignorance that people had not been exposed to people that were different than them.

So, I actually felt sorry for him and still followed the plan, which requires me to go and see my professor every week, and every week he would play a little game and pretend that he really didn't want me in his office. He actually wasn't playing. He communicated very effectively, but I would go every week anyway and ask him questions, and the only reason that he found out that I made an A in his class is because he happened to be my advisor also and at the end of the semester, when he was advising me for the next, he looked down at the grade, looked at me, looked down and he said, "You made an A in my class and you're a ..." And I said, "Yes, I'm a woman of color." I said, "But let me tell you some stories about my mother." And as we started sharing, at the end he decided that he would change his mind. He said, "You know what? All these years I have been wrong. Anyone can be an engineer and anyone who wants to be, I'm going to help them."

Donna Milgram: Wow. So, you not only shifted him for yourself, but you shifted him for all the students that were going to come behind. Wow. Now, I want to ask you something. It didn't occur to me until right now during this interview. **One of the areas that women have the greatest difficulty is in the lab and in my WomenTech Educators Training I talk about how some of the different informal play experiences and overall women have less. Students who come from lower income families usually have less experience with the kinds of things that are hands-on, that make the lab easier. Does your system help with the lab?** I know you've mentioned reading before, but I'm curious because a lab is such a challenge area for women in particular.

Donna O. Johnson: Oh, it absolutely is and the system helps in the sense that again, we're building confidence. So, if I think I can, I can and if I think I can't, I'm still right. What happens in lab is that people don't get chosen to be lab partners. So, that's an attack on self-esteem, but if I walk in, and one of the things that we encourage students to do is not only go and see your professor every week, but also, when you have an opportunity to work within a group, that you go in and introduce yourself, tell them that you plan to make an A in the class, if they're planning to make an A, would you like to be my lab

partner or would you like to study for this course with me? I find that when a student takes that kind of initiative, it not only changes how they're responded to, but ultimately, it changes that other person's view, that subconscious bias once again.

Donna Milgram: That's a beautiful compliment because our focus, in the WomenTech Educators Training, is to make sure that no student is different than the others, no student is going to be put in a situation where there's not structured pairings or group work. We want the professor or instructor to structure that so nobody's left out, but at the same time, it's so important for the students to be empowered to do what you're describing so that they're able to create those kind of liaisons. If everybody were to have that on both sides, I think we'd have a truly inclusive classroom. **Now, I'm curious, have you found that your learning system works best when it's incorporated into programs in a certain way? For example, is it better to assign it as a self-study program or offer it as a supplementary course led by an instructor, how Mary Rowland did it, or should it be taught by a peer? How is a delivery of Guaranteed 4.0 most effective?**

Donna O. Johnson: We actually are effective in several different formats. All of the ones that you indicated, self-study, supplemental courses, whether it's led by an instructor or a peer. We really don't do a cookie cutter. We talk to the school and the representatives, evaluate and then design a program that works for them. So, we do everything from a semester-long model where, again, we see the students about once a month. A single visit, whether it's a Summer Bridge program, to train them at the beginning of the fall or the beginning of spring and even online curriculum, but the most important, and the key to success is consistent implementation and accountability.

For example, the way the system works, the students do their Bullet Point Reading, they'll rewrite their notes after class, we call those Bullet Point Notes, and then they will analyze that homework, that's called Bullet Point Concept. So, all three types of bullet points for every class, all goes into one notebook. What you want to do in order to create accountability is to have support so that someone is checking the notebook. And again, the beauty of the system is that it only takes about 30 seconds to check a notebook. So, you know if a student is on plan, on track for success very quickly. Whenever you have a natural environment where students meet, whether it's a supplemental course or if they're in a program together where they check in with their coordinator, you just want to have those notebooks checked.

You can create teams, which the teams can compete, particularly when we're doing a semester-long. It creates positive peer pressure. If there are any learning communities you can implement in that way. So, many different ways to administer the program, but again, the key is accountability and making sure, even if it's peer-to-peer, that the notebooks are being checked, that there's accountability.

Donna Milgram: I remember Mary Anderson-Rowland telling a story. She said she taught your course using your materials in one hour and that however students would have to make their plan, their time management plan, and how they're going to handle both their personal life and their work life and their study life. Then, if they started to run into a problem, she would pull out their plan because they had a copy of the plan and they turned in a copy to her, and she would ask them, "Are you following the plan?" And inevitably, they weren't following the plan, so she reminded them to get back on track. I am wondering, many instructors will say to me, "Okay, how long does it take to teach the Guaranteed 4.0 System to the students because I don't have a lot of time in my class." And they're concerned if it's

offered separately, then the students may not get it. **Could you just speak to how long it takes to teach students methodology?**

Donna O. Johnson: It actually takes about two hours, two and a half hours to go through what we term seminar one, that's where the students learn the basic three steps. And the streamlined version that Dr. Anderson-Rowland was speaking of could be presented in an hour. I term myself one of the sweetest drill sergeants on earth, but I have to give that title to her as the sweetest senior drill sergeant on earth. When she tells students to do something, it's absolutely going to happen.

One of the reasons her program was so successful is that she actually did the follow-up, checked on the notebooks and the time management section, we term that a Plan for Success, where students create a schedule, if you will. It's a little different. Our schedules never have the word study on them because we actually want students to not study, but to actually be on plan. So, one of our models is stop studying and start learning now. The word study is very nebulous, it could mean anything, I just have a book open somewhere, but when you're on the Guaranteed 4.0 plan, shortened "On Plan", that means that "I'm doing what I'm supposed to do when I'm supposed to do it." So, when she tells them to pull out the plan, they're checking the plan for success to make sure that you're doing the things that you need to do when you need to do them in order to be successful.

Donna Milgram: Two hours is all that it takes to teach them to get these kind of results, but then I'm hearing there's also some follow-up checks that the instructors or program coordinators or whoever is disseminating this program to the student has to do it as well, but that's like checking the notebook. So, it's just two hours and then check-ins on are they following the plan. So, I understand that right?

Donna O. Johnson: Yes. Let me clarify one thing. The instructors don't have to teach Guaranteed 4.0. We have either online curriculum or we, Guaranteed 4.0, come to the school and present the actual information. Then we train the administrators on site or the faculty on site to do the follow-up. As I mentioned, we have a semester-long model where we come about once a month. When we do that, we actually do the check-ins with students etc. Now, typically at two-year universities or two-year schools we have the opportunity to train folks on site to do a lot of the follow-up. Even if we come in and do a semester-long, we should not have to do that more than twice because we train the people on site on how to do the follow-up. So, if you need us to come for more than two years, I haven't done my job. So, we try to work ourselves out and then they could simply use the online curriculum.

Donna Milgram: That is an excellent system. Again, I am just astounded that you have made this such a compact intervention of only two hours and then the follow-ups. I'm excited. I'm thinking about again, all that new things I'm always learning and having the opportunity in two hours to greatly improve my retention and make my success plan. I love plans. That's why we have recruitment retention plans at our WomenTech Educators Training. So, I'm excited. Let's talk a little bit about two-year colleges some more, because that is our primary audience for this *STEM Success for Women Telesummit*. Will your system work for two-year college students that are not just attending college, but the research shows that most are working full-time. **In our CalWomenTech Project we found that about 50% of the women also had children. So, they really have a lot that is pulling on their time and I'm just wondering, do you have experience with two-year colleges and how will it work for this audience?** It's different than the university audience.

Donna O. Johnson: Absolutely. I love working with two-year colleges and students that are in transition from them into four-year institutions, primarily because they're often nontraditional students in the sense that perhaps they have been working for a while, they have families and in essence, they understand the value that an education can bring. So, they're often more invested, if you will, in making sure that they are academically sound. So, we love working with two-year university students. To address the other part, we start every seminar with stress management because stress is actually the number one reason that students don't achieve their academic goals.

We define stress as anything that takes you away from the task at hand. So, with all of the things that you mentioned pulling at the time, but not just their time, but things that they have on their mind. Anything you think about more than three times in one hour when you should be doing something else, that's called stress. So, we have a method that's actually very simple to manage stress, that's been approved by psychologists and psychiatrists and it's something that they will do for one hour a week and we train them on how to do that. Then, not only do we deal with the reality that stress is going to occur, so how do you manage it. Then, as we talked about earlier, they create a plan for success and one of the things that we share with students, particularly community college or two-year college students, is that you need to separate your life.

When you're at school, you're a student full-time. When you're at home, you're either a mom full-time, a daughter full-time. Whatever you are, you're full-time in that role. When you're at work, you're an employee full-time. So, when you separate, it's actually better for the brain. Multitasking is actually a myth. You can switch from one task to another, but you simply cannot do more than one thing at a time. It actually takes longer to do something when you try to multitask. So, we don't necessarily explain all of the brain science behind it, but we share with the students the things that they need to do in order to be successful, especially in two-year institutions, and then we give them the guaranteed three steps so that they know exactly what they're supposed to do and when they're supposed to do it. We have actually found enormous success with two-year institutions.

Donna Milgram: Wow. I can imagine that many of our listeners are eager to know what they can do for one hour a week to greatly reduce stress. I know that I spend a lot more time in the week doing meditation and yoga than an hour. So, I'm quite curious to know as well. **Do you have any stories from students about how your system has made a difference in their life?**

Donna O. Johnson: Oh, absolutely. I know we're running short on time probably because I talk a lot, but I really must share a couple of them. Dr. Lesia Crumpton-Young was a student in engineering at the same time I was, a different university. She was having trouble with her thermodynamics class. This was before Guaranteed 4.0 even had a name. So, I shared the system with her and coached her through thermodynamics. She went on to finish her degree, because she was about to quit school, and then went on to grad school. She is now a professor in chemical engineering. I love that.

Dr. Tamiko Youngblood is a similar story, but I must tell you about Miguel, because he started in community college. He graduated in the bottom third of his high school class. So, he didn't do very well at all and did not pursue college right after high school. He said he was working some dead-end jobs and then he got a "good job", but he figured out this is as good as it will ever be. So, he went to community college. He made a D on his first exam and was going to quit thinking, "School was never my thing." And this guy in his class said, "Don't quit. The 4.0 lady taught us how to do this plan." And he taught him the plan. He did it. Got an A on his next exam. Graduated from community college with a 4.0 GPA. As a

result of that, got a full scholarship to Drexel University, which is a private school. So, that's a lot of money. He did a double major in biomedical engineering and computer science and when he graduated, he had a problem because he was a Fulbright finalist. He had a 4.0.

He got a scholarship for grad school, but he also got offered a really, really good job. Now, when I say really good job, this was 15 years ago and the starting salary was almost six figures, \$2,000 short of six figures 15 years ago. Now, he had a choice to make, "Should I do grad school or take this job with a lot more money than I have ever seen?" I told him, once I met him he told me the story of his success. I said, "You should negotiate." He actually talked to the company. They agreed that if he came to work for a year and deferred his scholarship for a year, they would then transfer him to London office where he would continue to receive his full salary while on sabbatical and use the scholarship to go to school for free. So, he's one of my favorite success stories.

Donna Milgram: Wow. I love that story and part of what I just love about your whole system is that you're able to help transform students like Miguel from being in the bottom third of the class to being a Fulbright scholar, getting I don't know what would that be, double six figures perhaps, 15 years later. I know there's one very famous study that was done in Ireland in which they mixed up the students in terms of what the grades they had achieved and the students who have been performing high they thought were performing low and vice versa, and that they totally ended up performing to what everyone's perception was, even though they were the opposite initially.

You have developed a system so that every student who chooses to follow that system can reach their maximum potential. It is just so exciting to hear these kinds of stories. **I know that our listeners are thinking to themselves, "How can I incorporate Guaranteed 4.0 method into my STEM programs at my college or my career in technical education courses?" What would you recommend to them in terms of getting started?**

Donna O. Johnson: Well, probably the easiest thing to do is to go to our website and contact us and let us help you develop a plan for success for your students. Our website is simply NoMoreStudy.com. Again, our motto is stop studying and start learning now. They can contact us and we will follow-up with them and help in any way that we can. And if I could just share, I appreciate what you do and the excitement that you bring to it, because you are helping countless students every day. Before Guaranteed 4.0 was my full-time job, I worked as an engineer and I did this on the side for free. So, I believe in what we do in the same way that you believe in what you're doing and we really have the best jobs on earth because we get to help people and that's the bottom line.

Donna Milgram: Thank you, and it's more than helping people. I think what you and I share besides a great first name, is empowering educators to empower the students. You've developed something wonderful to do that. That's what I do with our WomenTech Educators Training. You do this with Guaranteed 4.0.

Now, it's time to take your questions. My favorite part of the session. One of the questions I'm seeing, **"What form is the training in? Is it a workbook? Is it a calendar? Is it audio?"** I know it's multiple formats. Could you describe that, Donna O.?

Donna O. Johnson: Absolutely. We have a workbook that students fill out while they're learning the system. So, they can be watch an online course and fill out the workbook. They can read the book and

fill out the workbook. They can attend a live session and fill out the workbook or they can do online group curriculum with a facilitator and fill out the workbook, but they will fill out the workbook regardless of the delivery method so that then they have a written record of all of the information for the system, as well as in the back of the notebook is the opportunity for them to fill out the plan for success. So, there's a step-by-step procedure for them to create a time management schedule, if you will, that we term a Plan for Success. We also have the time management schedule available, such that they can create that electronically as well.

Donna Milgram: Great. Another question from our listeners is, ***"Do most schools implement your program college wide or is it program specific, how does that normally get implemented?"***

Donna O. Johnson: It varies by school. What normally happens, we will start with one department and they experience success and then it moves to more departments until we are school-wide.

Donna Milgram: Okay. Normally I have found success begets success, so as they see it, then it's rolled out?

Donna O. Johnson: Yes.

Donna Milgram: Another question from our listeners is, ***"Do you really guarantee that all students that use this system will get a 4.0 GPA?"***

Donna O. Johnson: Absolutely. All you have to do is follow the plan and inherent in the plan, all the steps that will make you successful. We actually had a young man, he called to apologize and he was apologizing because he achieved a 4.0 and I said, "What's the apology for?" He said, "I only did your plan to prove that it would not work and I got a 4.0 by accident."

Donna Milgram: Another question from our listener, ***"Do small businesses reach out to you to use your program?"***

Donna O. Johnson: Oh, absolutely. We do corporate training as well because the average exec gets emails and it takes three to four hours a day just to do email. So, we show them how to do our Bullet Point Reading system and train everyone in the organization on how to write emails, summarize information etc., such that it cuts their email time in half. Then also with communication within a small business, we are able to help them such that it increases their communication and then profitability. We do things with sales organizations based on how the brain hears information. You want to present information with the brain in mind. So, yes, yes and yes.

Donna Milgram: Another question from our listeners, ***"Is there anything for individual use?"*** I guess I'm probably not the only one thinking, "Oh, I want to do this for myself." ***"Can I access that as an individual?"***

Donna O. Johnson: Yes. On the website there are products that are available for the individual, but don't buy them for your group on the website because there's a group discount when you contact us, but yes, there are a number of products on the website that you can get for an individual.

Donna Milgram: Okay. Great. Another question from our listener, "*Do you have studies about your learning system going on right now?*"

Donna O. Johnson: Oh, absolutely. We just finished a semester-long project with the University of Houston and we tried something different this time. We've been working with them for years. They're one of the schools that have gone from one group to many departments now and 41% of the students participating had above a 3.5 GPA and 70% were above a 3.0. So, their averages were higher than the college average.

Donna Milgram: Great, great, great. Well, those were some great questions from our listeners. Thank you again Donna O. Johnson Mackey.

Donna O. Johnson: Thank you.