

## Šolska psihologija na prvem mestu: intervju s prof. Frankom C. Worrellom

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## School psychology first: An interview with Professor Frank C. Worrell

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Dr. Frank C. Worrell is Professor in the Graduate School of Education at the University of California, Berkeley. His current appointments include Faculty Director of the School Psychology program, Faculty Director of the California College Preparatory Academy, and Faculty Director of the Academic Talent Development Program. Prof. Worrell recently completed his term as the editor of *Review of Educational Research* and is an active member of several professional organizations, among them a Member at Large on the Board of Directors of the American Psychological Association (APA), an elected member of the Society for the Study of School Psychology, a Fellow of the American Educational Research Association, and a Fellow of the Association for Psychological Science. His areas of research include academic talent development and gifted education, the education of at-risk youth, ethnic and racial identity, scale development and validation, teacher effectiveness, time perspective, and the translation of psychological research findings into school-based practice. Prof. Worrell is a recipient of many national awards for his outstanding work as a psychologist. He has been recently honored for contributions to school psychology with the 2016 Nadine M. Lambert Outstanding School Psychologist Award, sponsored by the California Association of School Psychologists. The award recognizes outstanding work of practicing school psychologists providing direct services to students, teachers, parents, or community agencies.

The interview was conducted on April 10, 2017, during my time as a Visiting Scholar at UC Berkeley. Its aim is to present an interplay of Prof. Worrell outstanding contribution to psychology and education. Because the scope of the professor's work is extremely large, the interview is divided into two parts. The first half presents Prof. Worrell's reflections on the role of psychology in education and focuses on school psychologists' education and training, while in the second part, three areas of research that Prof. Worrell conducts research in are introduced, i.e., fostering learning potentials, cultivation of giftedness, and time perception. All three domains are discussed in the framework of school psychology.

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## Part 1 of the interview

**Professor Worrell, first, my sincere congratulations for the Nadine Lambert award. Please explain, what makes this award special to you and your career?**

Thank you. The *Nadine Lambert award* is particularly special to me because Professor Nadine Lambert was my doctoral adviser. She founded the School Psychology PhD program here at UC Berkeley and I took over as Director from her in 2004. It is also special in another way because many of us who are academics are not seen as to do applied work and this award is really for applied work. Thus, the committee recognized that some of the work that I have been doing in whole school reform is school psychology work. You know, typically we just think about school psychology as giving tests or diagnosing the students for special education and so forth. However, in this particular project involving the University-Charter District Partnership, what we did is we worked with the whole school to improve achievement of the students from the low income and minority backgrounds. They saw that as applied work and I think it is, so I am particularly touched to receive this award.

**What led your career towards school psychology? Who influenced your understanding of psychology and made you think as a school psychologist?**

Well, that is interesting ... hmm ... I mean... I came to school psychology by accident (laugh). Namely, first I was studying educational psychology that in the U.S. is primarily research. I had been studying educational psychology at the University of Western Ontario and I was going to do that for my PhD. A friend of mine was attending Berkeley at that time and sent me the Berkeley catalogue. Actually, that is when I read about the school psychology for the first time. Realizing this very powerful intersection of research and practice triggered my interest and led me towards school psychology. Actually, I do think that research should inform practice so that in fact science will guide what we do, while practice should inform what research is studying; that synergy is really important for both of them to speak to each other.

At the beginning of my career, I was lucky in the sense that I had my adviser Harry Murray in Canada with whom I had done educational psychology. He was also my undergraduate adviser and I did my masters in educational psychology with him. He studied teacher effectiveness at the university level and he took research very seriously. In fact, my education in Canada, in general, was very strong: we treated psychology as a science. We approached questions with appropriate humility and skepticism and tried to let the data speak rather than trying to let your opinions and forms say what the outcome should be. I think that that basis provided a strong foundation that served me well when I got into the program here, met Nadine Lambert, and other faculty members who I worked with. Mark Wilson who is still here was also a member of my dissertation committee and got me interested in measurement issues. Early in my career at Pennsylvania State University, I

was lucky enough to be mentored by Robert Hale and Marley Watkins. I have written, I think, a couple of articles with Dr. Hale; he helped me focus on the appropriate use of statistics in answering questions. Dr. Watkins helped me take the school psychology assessment to Trinidad and he and I have written several papers together on our work on Trinidad. I will always remember one of his frequent messages to students: "Hear everything, believe nothing, trust in data."

**You contributed the definition of "school psychology" for Oxford Bibliographies, the world's largest authoritative research guide for a variety of academic topics. Relating to that, what would you especially underline of what school psychology is today and what it is not?**

I think school psychology is really the application of psychological science in its broadest terms: to the development of children, youth, and families, and specifically not just their psychological development but also their educational development. It is psychology in the service of learning. Therefore, we are concerned not just with the depression, anxiety, behavioral problems and ADHD, but also, for instance, with learning to read, learning to calculate and learning to write. Thus, school psychology is really a psychoeducational practice focused on all aspects of the child. Furthermore, you cannot work with children and youth successfully if you do not work with their teachers, their parents, and the significant adults in their lives. School psychology then is a general practice that is focused on youth. In fact, one can take it up at the university level as well, although most school psychologists do not practice in university. They practice from kindergarten through the end of high school. It is general in the sense that you need to be able to do a multiplicity of things as a school psychologist. You need to be able to do assessment, you need to be able to diagnose, you need to be able to do consultation as necessary, you need to be able to do psychological, behavioral, and other types of interventions, like counselling and so forth. You need to be able to do program evaluation because sometimes the problem may be at school level. For example, if there is a lot of fighting going on at a school, the issue might not be an individual student but systems that are not in place. Therefore, it is really a very broad specialty but with a focus on the educational systems. Because of that, in addition to your training in psychology, you need to have some understanding of education and education as a system ... how do schools work ... you know, what is the nature of the relationship between the curriculum and what the teacher does. Therefore, those are all things that school psychology is. Then, of course, you have to be able to deal with crises situations that do not occur typically. For instance, there was a shooting in a school in Southern California yesterday. A special education teacher and her student were shot by the teacher's ex-husband. Now the school psychologist is going to have to work with the other students at that school, work with the teachers in crisis. Sometimes the crises may be a hurricane or a flood, a car accident, or a hurt member of the community. Thus again it is a very, very broad-based specialty. Then, of course, there is research on all of these issues. Right? (pause)

I think what school psychology is not is a hard question to answer because school psychologist is a kind of like as a general practitioner; you need to be able to do multiple things. I think if I had to say what the school psychology is not: it is not just learning how to do therapy and taking it into an individual school context. Right? Because of everything as we do in the school context ... umm ... I mean ... yes, we want not to appear depressed, to be able to interact well with their peers, but we have a goal. We always have a goal in mind and that goal is students' academic, behavioral, social, and emotional development. We are always thinking about the development and in fact, their learning. You know, because if you believe that education itself is a public health issue, that the more educated the person is, the less likely they are to be physically and the less likely they had to have mental problems and so forth, the less likely they are to be unemployed. That in fact school psychology then is an engaging in a public health enterprise that is really a social good for a society. It is not ... umm ... sitting in an office just doing private practice. If in fact what you are doing with a kid in your office is having no impact on the child's performance; he is still acting up in the classroom, still refusing to learn, then I would say that you are not actually engaged in effective practice.

Ultimately, school psychology from my point of view deals with anything that facilitates teaching and learning in the broadest school context.

**What is therefore, in your opinion, the distinction between school psychology and educational psychology? Namely, many times we use these concepts interchangeably, but we can also observe different understandings between the US and the EU contexts, which can provoke some kind of a terminological mess.**

Well, I do not know if it is a European problem or an American problem or a combination of both (laugh). I am not sure but I think the term school psychology was first used in the US in the early 1900s to signal that, in fact, we are interested in education, but we are interested in the education in the school context. Public school is a very important aspect of life in the US because our laws require us to educate everyone, and this is why the idea of school psychologist being present in school settings to help students learn is so important. On the other side, the term educational psychology I know, in much of the rest of the world speaks to people who work in research settings as well as the people who work in practice settings and who have gotten more training. In the US, we make a distinction where educational psychology ... umm ... educational psychologists study learning issues but they get no clinical training at all. School psychologists get the research training but they also get clinical training. Therefore, it is almost as if school psychologists are getting two degrees in parallel, the research degree in educational psychology but they are also doing a clinical psychology degree, and applying those clinical skills in the context of schooling. That is how we really made a distinction in the US between the school psychology on one hand and educational psychology on the other.

**You have been the director of the Graduate School of Education's School Psychology PhD Program at UC Berkeley for 12 years. What are the main features of this program? Why is it so good?**

Hm ... I am not sure I can say why it is so good (laugh). Most psychology programs have behavioral psychology as the theoretical foundation. I think behavioral psychology is very important, and certainly, we teach that. However, our theoretical foundation as a program is developmental psychology. We think that if you are working with, you know, children, very young children, pre-schoolers, elementary aged, middle school aged, no school age, high school age kids, that in fact, developmental psychology makes a better umbrella theoretical framework. We also embed prevention into the program, as it is an integral aspect of the program. So for example, consultation is often taught in other programs in the third year, but we teach it at the beginning of the second year. Moreover, we teach it alongside part of consultation practice and include the role of prevention. Because we see the consultation as a tool for a school psychologist to work with teachers and principals to help avoid problems. So that the prevention is an integral part of the program. Some of the things we do, I think, others do as well. We actually have the students in the field; the students are in the field from the very first semester. They are doing various things, but there is a strong connection between practice and research, even in the internship year. In many places, student interns go off to different parts of the country. Our interns do their internships in the Bay area because they receive supervision on campus in the addition of what they get in the field. They have supervision and consultation on the campus every week. So that we are always in close proximity with them and with what is going on, so that we can help them process their experiences and make recommendations as things go forward. We can visit sites if there is a problem, even though the internship, because they are all local. That is actually one way in which we are different.

**Let us help understand: what is the share of practice and academic work at the university in your six-year PhD School Psychology program?**

Well, it is somewhat hard to say what the exact percentage is but we like to think that it is split fifty-fifty. I think the students often want to spend more time on practice because they find it a little bit easier than research (laugh) but we try to do a somewhat relatively even match. One of the other things we do differently: in most school psychology programs, the doctoral advisors are all school psychologists themselves. In our program, the doctoral advisors are leading developmental psychologists; actually, I am the only one who is a school psychologist. Others, for instance, Elliot Turiel, is a leading researcher in social and moral development and he advises those students who have that as an interest. Anne Cunningham on the other hand is the leading developmental psychologist in reading; thus, she advises students who have reading interests and so forth. People who have more measurement interests that go beyond my expertise will go to Mark Wilson

... so that is the way ... The idea is our students are trained with the best researchers, the best scientists for their science and then they are getting practice from good practitioners. One of my students who graduated last year, for example, is teaching the assessment course in this university. I do not teach the assessment course here. The people who teach the assessment course and prevention course are people who are out in the field; they are what we call the clinical faculty. So they are using these tools every week, they come in and they teach those tools that they are using daily. Therefore, that I who am not doing practice every day is not the one teaching them how to engage in the practice. I teach consultation because I do a fair amount of consultation, so I teach a consultation seminar. However, people who are actually practicing in the field part-time teach all of the other school psychology seminars, assessment seminars, the seminars on prevention and so forth.

**Are mentors in the field or field supervisors paid for their work?**

No, they are not, we don't pay field supervisors. It is a standard thing that there is a benefit ... umm ... I think, you know, there is a trade-off ... On the one hand, they get a student who is bright and committed and who can share some of the work, right? On the other hand, our students get the benefit of learning from people who we respect in terms of their competencies. Therefore, there is a reciprocity to this, it is professional relationship.

**It is somewhat unusual that your program at UC Berkeley is delivered at Graduate School of Education and not at the Department of Psychology ...**

I think that is an interesting thing that has happened in American psychology that two types of psychology there are more likely to be found in Schools of Education than in Departments of Psychology. School psychology is one and the Counselling Psychology is the other, because Counselling Psychology programs often also prepare counsellor educators. These programs prepare professionals for school-based practice. Therefore, because of their tight connection to schools, both programs are often found in Schools of Education. Just a history of the way it is developed. And I think that ... hmm ... you know, Educational Psychology actually, I guess, which is not a health service psychology but Educational Psychology, sometimes is often found in Schools of Education as well. So, I mean ... umm ... I think it is about 60% of School Psychology programs in Schools of Education but 40% of them in the Psychology departments. It just worked out that way.

**How do you recruit the candidates? Who do you select? What are your selection criteria?**

Right (laugh). We are lucky to be situated in the university that has quite a stellar reputation both nationally and internationally. Furthermore, students who are looking for a graduate school and who are pretty interested in PhD often want to work with the best researchers and so we have some of those here at Berkeley and so ... we get ... hmm ... we hope for a class

of about four to six students. Every year we get somewhere up to fifty applications and in very heavy years we make as many as eighty or ninety applications and ... hmm ... and so there is a first pass we screen them for their academic backgrounds, how well have they done as undergraduates, how they have gotten the breadth of training that we would like them to have. After we look at the letters of recommendation and you are looking at ... umm ... are these students who are bright but who are curious, who want to learn, who get along well with others. I mean, at the end of the day we are training people who are going to be in health service psychology; they need to be able to consult with people and so forth. Then we identify a subgroup, based on all of those things, and we identify a subgroup for interviews. What we typically do is we invite the student to come to campus; we will typically have an interview day. We have four sets of interviewers. First, the students meet with me as program director. I am not on the admissions committee; I meet with them individually, so I can have a sense of them. They also meet with two members of the faculty who make up the admissions committee and they have interviews with them separately. Then they have an interview with two different sets of student teams, which typically are made of two or three students. At the end of the day, you have me, the two faculty members, and typically four to six students, who have actually interviewed these candidates. We get together and we share our observations, so if there is a discrepancy in what an interviewee said with one versus another and so forth, it comes out ... A number of years ago there was an interviewee who all the students felt that he would not fit in, that he would be too arrogant and so forth. I myself did not necessarily feel that but I am the director of the program and his approach with me may have been very different than the way he presented himself to others. Therefore, the Admissions Committee did not admit him. We really use that sort of collective-judgement as well as how would they fit in here; will they come in and be a part of the team or will they be disruptive, not really at ease ... because getting the doctoral degree is difficult and so you don't want to increase the additional difficulties to the process that you do not have to do that with.

**The admission procedure is quite personal, isn't it? And the percentage of those students who finish their studies is very high?**

Yes. The majority of our students finish and when they don't it is actually sometimes because of life choices. Since I have been here, we had several students who had left. One of them was just not doing well clinically ... hmm ... I think she was not doing well with psychological work and after a while, she decided she wanted to be a nurse and that was much more hands-on for her. We have a young man who is now a principal. He decided, you know, I want to work more close with teachers than a psychologist can. He came to visit me and he said, "I am sorry to disappoint you." and I said, "No, you are not disappointing me, I am glad that you have found what your passion is.", and he is a principal now. There is one who decided that she didn't want to work with people and she wanted to be a basic researcher, thus she went to the developmental psychology. We had those kinds of things. The

majority of students finish ... I mean ... we did not have non-completion as a big issue but occasionally we will have someone with poor competencies leave but that is very atypical.

### **What is the share between offers and applications from your candidates?**

We typically make about eight to ten offers. This year, for example, they are cutting back on the number of the graduate students on the campus, so we were given seven slots. That is not determined by us, we have been told (laugh) by the Dean's office how many offers we can make; this year we were given seven, so we made seven offers and five of seven have said "yes". The two who did not say "yes" yet, they are very good students, but I would not be unhappy if they do not come because five is a nice size class. One year, we had tremendous difficulties as we made ten offers and ten students said "yes" and they all came, we were expecting five or six, and then it becomes difficult because you have a large cohort you have to serve.

### **... and do they all pay for their studies?**

Right, they do. The way tuition works in the US is ... well ... there are several things. There is full tuition which students who come in from outside the state or outside the country pay. Then there is in-state tuition, so the state government gives us a certain amount of money for each local student, as we are the state university. Let's say, if the tuition is 15.000 USD, an in-state student will probably pay the tuition of 7.000 or 8.000 USD per semester because the state government will give the rest of the money to cover for that student. And yes, there are also fellowships and scholarships, so that some students who will get the partial fellowships, for example 5000 USD, but there are students who get the full tuition ... you know ... it is competitive and based on what the student is bringing. Some students will be fully covered for 5 years. Moreover, the tuition is one of the reasons that, in fact, the campus is cutting back on the number of doctoral students, because they are moving toward being able to fully fund all of the PhD students, which we do not do at the moment.

### **How do you monitor and evaluate the quality of your program?**

So, yes, with accreditation. You have periodic site visits. Our last was in 2014 and we were given five years, they will be back in 2019. So we can get anywhere from two, I think, it is to be seven or ten years. It is interesting because our model is not well understood as we use developmental theories as our basis and because we have a clinical faculty that in many other places don't play as big a role as they play here. We have clinical faculty we consider core faculty because they are half-time here ... hmm ... to be a core faculty member by APA's definition, you have to give at least 50% of the time to the program. Moreover, the title under which our clinical faculty works is a lecturer. In most places, a lecturer is somebody who comes and teaches one course. However, our lecturers are continuing lecturers because that is the way the UC Berkeley model works. So, when the site visitors

come from other universities, they always find it difficult to understand how we do what we do and why we do it in the way we do it because their programs do not do it that way. However, we have always gotten positive reports, I think, as a program from a site visitors, because they get here and they spend three days or whatever and they understand it. But then they don't make the decision. The decision is made by a committee back in APA, they write a report, and often we are in argument with that committee and they will say, "We don't like what you do." and I said, "But the site visitors said that it was fine, so I don't know why you don't like it.", but I have to spend a lot of time writing additional explanations because they were not here on the ground so they didn't see it in action and they don't understand. We also have ongoing evaluations ... I mean ... the faculty meets at the end of every year and think about the program. Our students give us feedback, we have several committees, one of them is a program advisory committee; each committee is made of the program, students, and faculty, and the program advisor committee ... (pause) ... their task is to say what we can do better. One way or another, we are always self-evaluating.

## **Part 2 of the interview**

In this second half of the interview, Prof. Worrell discusses the fostering of learning potentials in school, giftedness, and time perception.

### **The book *Achieving College Dreams*, which you co-edited with Rhona S. Weinstein, was published last year. How are you as a school psychologist in academia and the Faculty Director of the California College Preparatory Academy (CAL Prep) related to its story and success?**

Right. I think it is important to know from the outset that in fact, it is the CAL Prep work for which I got the Nadine Lambert award. I think a way to think about this is to use the metaphor, that there is a story that you probably have heard about ... umm ... Two people are standing by the riverbank and there is somebody who comes down in the river and asks for help and is pulled out, and then another person comes down the river and is pulled out, and the third person comes down and is pulled out. Then, one person of the two people who have been helping them starts to walk upstream and the other says, "What are you doing ... I mean ... we have to pull these people out of the river." And the other says, "No, I need to stop them from going into the river." Right? "I need to find out what is happening that these people are falling into the river." That is in essence what CAL Prep is about, what *Achieving college dreams* is about. Namely, we have data for many, many years that students who are from low-income backgrounds, students from certain ethnic groups in the US, such as African-American, Latino, or Native American, are less likely to graduate from high school and less likely to go to college. They are more likely to live in poverty when they are adults because they do not have education. Therefore, one of the things that we as researchers are supposed to be doing is, in fact, dealing with societal problems ... I mean ... umm ... we are the University of California, we are a public

university, we are supposed to serve the state, and the people of this state. Therefore, the idea of CAL Prep was ... umm ... could we create a school where we are not selecting who we take and we take just everybody that comes. In fact, we are encouraging people to come whose parents did not go to college. They don't have the educational-social capital that many families have. Could we create a school, a school where those kids ... umm ... can we provide them with such a quality of education that they then will go on to college, and break the cycle of poverty for their families. That is the basic idea that the book is really an overview of the years from 2002 to 2012, actually it is a ten-year ethnographic longitudinal study. We started talking about opening the school in 2002, after a lot of debate the school was opened in 2005. The first class of high school graduates graduated in 2011 and the second class graduated in 2012. However, you see, Berkeley is not unique in this endeavor. Actually, there are a number of other universities that have engaged in this particularity, in the US system. The first school opened by UC system was at UC San Diego. They opened the Preuss school in 1999, and then UC Los Angeles community school, I believe they opened it in 2007 ... UC Davis opened the secondary school ... There are four of the nine undergraduate UC campuses that have schools, and you see ... San Diego is now working ... I think ... with two schools, not just one, as is UC Los Angeles. Each of them is doing a little bit differently because we want to say there are multiple ways of getting to this issue but we are certainly serving the same populations; low-income students, mostly first in their families to go to college and that kind of things, try to get them into college. One of the great success stories, I think is, Marco, who you met, my postdoc. Marco was a graduate of the first school that was opened by the one in UC San Diego, the Preuss school. He graduated from that school, he did his dissertation research at UC Los Angeles with the UC Los Angeles school and now he is doing a postdoc with the Berkeley school. He has gotten a doctoral degree but he was one of these people, Latino, young man, first in his family who went to college. That is really the goal of it. Thus, one can think of school psychology as the person pulling the individuals out of the river or you can think of school psychology as a person going up-stream to stop the kids, the people being thrown into the river ... and that is what the CAL Prep is. That is why I think it is an important aspect. Right? To be thinking at a more system level rather than just on the individual diagnostic level. Let me actually diagnose this kid with a learning disability and then grow an intervention ... you know, if I can stop something in the kindergarten maybe I will not have any diagnoses of learning disabilities at grade four.

**How did you choose teachers for this particular project? Did they receive any special preparation?**

These were part of the discussions that we had; what is our expertise, I mean, Rhona Weinstein and I are both committed to ... she is a community clinical psychologist. She has done a lot of work on school reform and her major area of research is teacher expectations. I was a secondary school teacher and a principal in Trinidad before I did my PhD. I think that this is one of the reasons I was recruited to this project, but we recognized that as Berkeley I am not going to be the principal

as I have a job. As we could not do this on our own, we collaborated with a charter management organization that has an infrastructure for choosing teachers and so forth. The reason we chose a charter management organization and not one of the public schools is because we needed assurance on the part of the school ... I mean ... that they would not change their mind in the middle of the project but instead keep it going. That has happened before: you start the project in a school and then the principal changes and the new principal decides, "I don't want to do this anymore." That is why we are working with a charter management organization. I actually served on the selection committee for each of the principals that has been chosen at the school. In fact, I co-chaired the principal search committee for the first principal. In the first two years, we met with the principal every week during the school year. It was a tremendous commitment of time on the part of the university. I got a course release because I spent a lot of time doing the CAL Prep issues. However, this is the way that our voice, our expertise got into the school. Rhona Weinstein actually developed the first advisory curriculum; she wrote it herself, she also trained the teachers in it and then evaluated it as it is written up in the book. I started a choir at the school that I conducted because they did not have many teachers for extracurricular activities. I supervised psychology interims at the school so that it had additional psychological support. Therefore, we were very much intimately involved in this school and the school success. That is CAL Prep.

**One of your major research interests includes time perspective and time attitudes. What attracted you to that area of research?**

I think ... umm ... it is interesting ... Erik Erikson is a theorist whose work was of great interest to me because I am very interested in identity, not as much in ego identity but in ethnic and racial identity. I was also interested in academic identities. Moreover, I was very interested in students who dropped out and in students who were gifted and talented. For instance, you are working with a student who is gifted and talented and that student thinks that they will get less than A and they come to you and say, "Can I get extra work so I do not get a B?" On the other hand, you work with the students who are at risk of dropping out and they are going to get a D and you are trying to get them to do extra work to get a C and they don't want to do the work. Therefore, I was very interested in what are the things that distinguish between students who are willing to engage versus those who are not. Those who get caught up in school and even if they are gifted and talented versus who they are not. In reading the literature on adolescence and particularly reading the literature of Erikson and others, it becomes very clear to me that it seems that a conceptualization of the future played the role. And so ... I was very interested in looking at Erikson ... I mean ... Erikson's first stage "trust vs. mistrust" the resolution of that is hope (laugh) ... and hope is a future looking construct. I believe that something positive is going to happen. That is how I started to get interested in this and so for my doctoral dissertation, I studied, I looked at students who are at risk. I chose a sample of students who are at risk and I compared them with a sample of students who are not at risk. What I found is that students who are in school and who were at risk

but graduated believed that the future was going to work out, whereas those who were equally at risk but dropped out did not believe that the future was going to work out. Therefore, hope acted as a protective factor against the risk. That is one of the things that started me down this path. I was also able to show, and I showed it at the talk yesterday, that when you compare students who are at risk, but who graduate, with the students who are not at risk, you find the major differences of course in the students who are not at risk don't engage in risky behavior, so those who are at risk engage in risky behavior in a way higher levels than the ones who are not at risk. The ones who are gifted and talented have a way higher academic achievement than the ones who are at risk. However, when you look at them on hope in the future they do not differ. So, again, while hope in the future is useful for those who are not at risk, it is a protective factor for those who are at risk. That is what led me down the path towards time perspective. You know ... a lot of my work has been done collaboratively ... For instance, I met a graduate student, Zena Mello, and she asked me to be in her dissertation committee. She was very interested in time and expectations. After she finished she came to do her postdoc with me and one of the reasons she chose to work with me is that we had discovered that a new scale measuring time perspective was not working well with the adolescents; therefore, we wanted to develop a measure that will work with the adolescents. She came to work with me in 2005, and now, 12 years later, we have an instrument which is translated into 12 different languages and that is showing very promising results in terms of its predicting anxiety, depression, even alcohol use to some extent, and also predicting academic achievement and educational expectations. So we are quite ... I think ... excited about the possibilities for this and some of my graduate students are starting to look at these constructs in their own right. For example, Dante Dixon, who looks at hope, found this really beautiful result: students who are high in hope do much better than those who are low in hope and those kinds of things. So, it has been a very productive area research for us, and, importantly, I think as potential for people who are intervention researchers. Namely, I see myself more as a basic researcher, less as an intervention researcher, although the CAL Prep I guess is a large intervention, that for intervention researchers gives some guidance about some of the things that we are trying to intervene to see if they would be useful in helping us keep adolescents more adaptive; more adaptive educationally, socially, behaviorally.

**Extensive research connected with direct application ... so ... this is a great example of school psychology dynamics, isn't it?**

Yes. I do think so. I do think it is a great topic. In fact, we have one of our papers in the *Psychology in the Schools* ... In this paper, we found that adolescents with positive time attitude profiles reported higher educational expectations and self-esteem and lower perceived stress than adolescents with negative time attitude profiles. Because school psychology generally does not publish these types of papers, the field does not get to see this kind of thing.

The article *Rethinking Giftedness and Gifted Education* from 2011 you co-wrote with Rena F. Subotnik and Paula Olzowski-Kubilius was extremely sound in gifted education

context and has had an enormous influence in the area of research and practice all around the world. In that masterpiece, you presented a MEGA model of giftedness, which probably has an important role in time perspective. Could you explain from this point of view the basic highlights in your understanding of the development of individual's learning potential?

I think if you think about giftedness in essence what we are doing and what our model talks about is that we are starting with kids and the potential they have. Thus, our goal in gifted education is to get them on the pathway towards possible eminence, although we cannot guarantee eminence. However, even if they do not get the eminence we want to put them on the path where they develop their talents as fully as they can. So the person who is good in mathematics may not go on to win a Nobel Prize in mathematics but maybe go on to become a math teacher or math professor. Right? They develop their talents even ... umm ... from being very good with numbers in elementary school they get the career, an accountant, somebody who works in the Wall Street or something, I guess. That requires an investment of resources and effort over time. In some sense, I mean so, we are thinking of time potential; if you are thinking of gifted education you can't help but think of the past, the present, and working toward the future. For example, it is easy, I think, to see in the non-academic domains. My sister, for instance, loves ice-skating, although she has never ice-skated. You know, we grew up in the Caribbean ... but she watched it on TV every time it came on. One day I was at the house and we were watching finals, and the reporter was interviewing the person who had won asked, "So, you have been preparing for this for the last couple of years?" and the response was "No, I have been preparing for this for my entire life ... since I was three years old." (laugh) So, and this is it ... I mean ... in some sense, development is something that takes a lot of time and that is, I think, the intersection ... umm ... that in fact time is required for developing gifts and talents. For instance, I am sitting here today in large part because of the education I received at Berkeley but before that the education I received in Canada and before that, the education I received in the secondary school. Right? So each of those built on the other, luck played a role, I might not have come to Berkeley if my best friend hadn't sent me the Berkeley catalogue ... so ... you know ... chance plays as well, but hard work and effort and so forth and getting the right mentor who is supportive and taught me things I needed to know and this is it. Therefore, the MEGA model really is about movement along the developmental pathway. To become eminent ... I mean ... he or she has to move along the pathway ... and one becomes very good in the field even if you do not become eminent right away.

**You serve as the Faculty Director of the Academic Talent Development Program at UC Berkeley. How does the program fit in your MEGA model?**

Yeah, I think it does relate to the theoretical model in several ways. I think one way, which it does, is that we are focused on domain-specific talent, so students who are coming in are coming to us to study writing or mathematics or chemistry, biochemistry, you know ... anatomy, whatever. Even in the elementary program we have a math course, a sci-

ence course, you know ... humanities courses. For kindergartens, for example, we had a science course called Oviparous Animals about animals that lay eggs, and so these students studied animals that lay eggs, and the course allows them to go deeply into the topic, right, and so in some sense one considered embodying the kid who had a very deep interest in that topic could potentially become embodied in something ... but it all started with the fact that they started at looking at chickens and other animals that lay eggs ... so exploring ... motivating them ... Again, if you are talking about the model, right, we talk about early teaching for falling in love with the subject. That is what the elementary division teachers are being told they need to do. Well, whether you are teaching mathematics, writing, or whatever, you are teaching these kids, you are sharing your passion for this subject with the kids in your classroom. In addition, we encourage parents to have the kids choose, so that the parent does not say, "I want you to be a doctor so you need to take the anatomy class." You know, we encourage the parents – we cannot force them – to allow the students to choose which course they want to do. Right? Then, as we get into the secondary division and we are teaching for technique ... they do not get grades at the elementary school, but we give grades in the secondary division, because now we are teaching you skills. This is beyond you having the passion for the subject, you need to develop the technical competencies, you need be good, for instance, in mathematics, or you get to be a good writer. Therefore, from now on, we are grading your performance; we are holding you accountable, and so forth. That is the idea of movement from potential to achievement to set you on the pathway. The other thing that I think our program does for many students, especially if they are the top students of their schools, is that it brings them into the situation where they not only meet teachers who are passionate about the subject but they need other students who like the subject, who are maybe as good as or better than they are. That is an important thing because there are some top students who never have been challenged in school ... when it happens first in college, they meet students who seem to be getting things much more easily than they are, and they are intimidated. But our students on account of the program have been challenged while still in elementary, middle high school, and so on ... and they learn that meeting someone who learns more quickly than you doesn't take away from you ... your talent ... and so that in fact it sets them up to continue.

**Can we assume that the role of school psychology is very important to work with parents and teachers?**

Right, exactly. Therefore, we need to prepare parents and teachers. Our teachers need to be prepared to teach talented students, and parents of many of the kids who are in gifted and talented programs including ours need to be prepared about how to best support their children. Many of these parents have a lot of money and feel they know how best to teach their child and so we get comments from parents every day. We listen to the comments, some of them are legitimate and if they are legitimate and the teacher could be doing something better we speak with that teacher, we work with that teacher so they do that. In many cases, however, it is just that the par-

ent wants that the kid would be the "best" kid in the classroom and in that case, we work with the parent (laugh) ...

**Is this program interesting also for your PhD students?**

Right. Many of our students in my program work in the summer program as summer counsellors, but some as teachers themselves. Of course I do research and so on ... umm ... I will assign someone our readings to our classes that I teach and so forth. The process is very synergistic. Some of the students will also work as research assistants in the program.

**You are dedicating your recent work to achieving eminence in life. What does the fact of "being excellent" mean to you?**

Well, eminence and excellence. I mean ... hmm ... let's say that most people who are very good at their job do excellent work. Eminence is a way of saying that you are at the very top of the field. You have changed the field so that everybody in the field knows who you are because you have done excellent work. Now, there are differences between what we call the performance and the production of eminence. If we think ... if we think about basketball as a case point: many people who are not interested in basketball know the name Michael Jordan. Jordan has not played basketball for many, many years now, for at least ten or fifteen years he has not been playing, but he was such a phenomenal player when he played he has become eminent. Thus, his name is associated with eminence, right, and we can think eminent names from the history, in music Mozart, for instance, Beethoven, in writing Shakespeare, Goethe, and others. The same thing continues today. We have the eminent players in the NBA, we have eminent people in other fields ... I mean ... Meryl Streep as an actress, you know, she is eminent ... I mean ... she does not always win the Academy Award, but her performances are at such level and for such a long period of time that she raises above the rest and ... umm ... that is ...what we are saying is that giftedness is relative to your peer group. Therefore, if I am a five-year old and I can recite a twenty-line poem I am quite an outstanding five-year old. If I am a twenty-year old and I can recite a twenty-line poem that is not a big deal; many twenty-year olds can do that, right? Therefore, if you are a gifted five-year old and you stay there while everybody moves you are not gifted anymore. To continue to be gifted you need to continue to move up and to be at the up end of the distribution and so what we think is that at the very top performance, mathematicians, hmm ..., surgeons, tennis players, whatever, at the very top the people who reached the very top, the top of the very top, the eminent ones, are the ones who are fully gifted. Therefore, when we think of the current national basketball association, I think that there are three hundred players or something like that at the National Basketball Association; every player in the NBA is gifted compared to the general population, but we only think that some of the players in the NBA are gifted. We think of the very best, they are the best of the best, Steph Curry, LeBron James, Kevin Durant. There are certain names that everybody knows. These people are the best of the best. Those are the ones who are eminent or on their way to eminence.



**What is, in your opinion, the role of school psychologists in cultivation of eminence pathway in students?**

Well, one role of the school psychologist I think is to help people get on the pathway, keep them on the pathway. We cannot guarantee eminence of course, like everything else, I mean, if there is one prize you think the Olympics, you know, one person gets the gold medal. Now, I made the point, for instance, in the 1976 Olympics, the 100 m sprint, actually Hasely Crawford won the gold medal. That was the one and the only time ... he never won in the Olympics again ... I mean ... he is not remembered, right? However, think about Usain Bolt from Jamaica who has now won gold medals in several Olympics; he has become eminent. Right? So, it is not just a one shot thing. The goal of the school psychology is to put somebody on the path ... we cannot guarantee the outcome, right, but we can say, "This is what you need to do." to become outstanding.

**Does it make sense to you that this may also be the way to prevent Big Fish Little Pond Effect?**

Right. Exactly. This is the other side, right. Because the BFLP effect is that when you are put in a more selective environment, your academic self-concept falls. The question is does that encourage you to work harder or does it stop you from working at all (laugh) ...

Moreover, there are some people who if they don't think they are very best they stop trying. However, there are the people if they don't think they are the very best they try harder, right? I would argue that the school psychologist's job is to try to make everybody try harder. Because the ones who try hard are more likely to have a chance of getting to eminence, of becoming eminent.

**No doubt, your bibliographical references show a very clear pathway towards academic eminence in your career. What, in your opinion, are the major contributors to it?**

Well, I am not sure I would agree that I am eminent but (laugh) ... I do think I have been incredibly lucky in terms of messages I have gotten over my career. From my parents, I mean, starting with my mother. Once I was ... I think about 17 years old, and I was taking my mother and a friend to a concert or some meeting ... and they were sitting in the back seat, I was the chauffeur. I am driving them and the friend says to my mother "What do you want Frank to be when he grows up?" I remember thinking "Oh, why is she asking that?" You know ... a teenager boy and my mother is now going to say she wants me to be a doctor and blah-blah-blah ... She always said she wanted me to be a doctor. Instead, my mother did not give that answer that day. What my mother said was this: "Frank can choose to be whatever he wants to be, but whatever he chooses to do I want him to do it at the highest level possible." So that, if we are walking down the street in the capital and you say to me "Oh, my God, look at the street how clean it is; it is the cleanest street I have ever seen", I need to be able to say to you "My son cleans the street (laugh). That is why it is so clean". That is the message that my mother gave to all of us. I got those messages as a kid growing up. I do not know if I always listened to them

(laugh), but I got them. When I became an academic, I got mentors who gave me similar messages ... umm ... to put in work and a lot of work. I remember I was also involved in the music festival in Trinidad and I got the same message there. In fact, I have shared it with all my students all the time ... A music festival adjudicator was asked by a reporter if any group stood out for him, and he named my secondary school choir. The reporter asked, "Why do they stand out?" and the adjudicator said, "Because they are professionals." And the reporter said, "These are school kids, they don't get paid for what they do, how can you call them professionals?" And the adjudicator said, and this is a lesson I have never forgotten, "A professional is not somebody who gets paid for what they do. A professional is a person whose work never falls below a certain standard." He went on to say, "When that choir came on the stage they did not always win the prize but I always knew I was going to hear a very good performance. Because their work met a minimum standard." That is the true definition of a professional and I have never forgotten that. Moreover, I have tried to do this with my work.

**What would be your final message to young psychologists just entering the field of school psychology practice?**

I think what I would say to school psychologists entering the field is that never forget that your ultimate goal as a school psychologist is to put yourself out of work (laugh). You want to get teachers to be teaching so well, you want kindergarten kids to learn their alphabet or their numbers so that they do not have problems, so ultimately you are working to make teachers the best they can be and students learn as much as they can early on and not make mistakes. Moreover, so if you think about it, we are working towards a time when there is no need for school psychology. Right? Because everybody will be doing exactly what they are supposed to do ... and education will truly be something that is serving all students regardless of their backgrounds. Now, of course, that is "a pie in the sky" vision. I mean that there will be no need for special education and so forth but it is a vision of thinking through what, where we are aiming, what is our ultimate aim. If in fact we can wave the magic wand, that is, you know ... that there will be peace on the earth ... everybody would be competent and doing what they are supposed to do. That is in some sense what we are trying to think about as school psychologists in the work we do in schools.

**What would be your message to experienced colleagues in the field?**

I would say to professionals that it is important to remember the issues we had at the beginning of our careers. I think it is easy for us to get arrogant and to forget that the mistakes that some teachers are making and that some junior psychologists are making, we once made ourselves (laugh), and that we are where we are because we were allowed the opportunity to make and learn from those mistakes with support. Therefore, to never forget that that support is what we need to pass on, that as we pass out of the system we need to pass on the things that allowed us to get to where we are. We need to do the same thing for the next generation.

## Suggested reading and resources

- Academic Talent Development Program (ATDP). (n.d.). Retrieved from <https://gse.berkeley.edu/academic-talent-development-program-atdp>
- Andretta, J. R., Worrell, F. C., & Mello, Z. R. (2014). Predicting educational outcomes and psychological wellbeing in adolescents using time attitude profiles. *Psychology in the Schools, 51*, 434–451.
- Centre for Educational Partnerships. (n.d.). *CAL Prep*. Retrieved from <http://cep.berkeley.edu/cal-prep>
- Nadine Lambert Outstanding School Psychologist Award (Region II), California Association of School Psychologists. (2016). Retrieved from <http://casponline.org/awards/#winners>
- School Psychology. (2017). Retrieved from <https://gse.berkeley.edu/cognition-development/school-psychology>
- Subotnik, R. F., Olszewski-Kubilius, P., & Worrell, F. C. (2011). Rethinking giftedness and gifted education: A proposed direction forward based on psychological science. *Psychological Science in the Public Interest, 12*, 3–54.
- Weinstein, R. S., & Worrell, F. C. (Eds.). (2016). *Achieving college dreams: How a university-charter district partnership created an early college high school*. New York, NY, ZDA: Oxford University Press.
- Worrell, F. C. (2013). School psychology. In D. S. Dunn (Ed.), *Oxford bibliographies in psychology*. New York, NY, ZDA: Oxford University Press. Retrieved from <http://www.oxfordbibliographies.com/view/document/obo-9780199828340/obo-9780199828340-0132.xml?rskey=dpHQB0&result=114&q>
- Worrell, F. C. (2017, April). Thoughts about the past, the present, and the future: Implications for educational and psychological functioning. Presentation at the Graduate School of Education Colloquium, University of California, Berkeley, Berkeley, CA.
- Worrell, F. C., Subotnik, R. F., & Olszewski-Kubilius, P. (in press). Talent development: A path towards eminence. In S. Pfeiffer (Ed.), *APA handbook of giftedness and talent*. Washington, DC, ZDA: American Psychological Association.
- Worrell, F. C. (2017). *CV*. Retrieved from <https://gse.berkeley.edu/sites/default/files/WorrellCV.4.2017.pdf>