

What Works in Education: Using the What Works Clearinghouse to Find High Quality Education Research – Transcript

GOOD AFTERNOON. WELCOME TO THE FDLP WEBINAR. WHAT WORKS IN EDUCATION USING THE WHAT WORKS CLEARINGHOUSE TO FOOD HIGH QUALITY EDUCATION RESEARCH. IF YOU HAVE ANY TECHNICAL ISSUES, FEEL FREE TO USE THE CHAT BOX AT THE BOTTOM OF THE SCREEN TO PUT IN ANY ISSUES. WE SELF-ERIN POLLARD, OFFICE FROM THE U.S. DEPARTMENT OF EDUCATION. With that, I will turn it over to Erin.

My name is Erin Pollard for Eric. It's the institute of education signs which is pan arm of the U.S. department of education. I will talk to you about the what works clearing house or the WWC or the clearing house. I'm going to begin by giving you an overview of the WWC, our mission and history and our general standards and procedures. Then we'll walk through our products and research and have a Q&A. So what is the what works clearing house. The WWC's mission is to be a trusted source of what works in education. It reviews research, identifies well designed and well impact studies and summarizes them and disseminates them to the public. The goal is to help educators, administrators, families and policy makers make evidence-based decisions.

The WWC was founded in 2002 to help schools identify scientifically based research required by the no child let behind act. Congress passed ESRA. This office took over the responsibility for the WWC. To support its mission, the WWC developed procedures and standards on the impact of education, interventions. The WWC continues to refine its procedures and methods and research synthesis methods. The WWC also refines its procedures to meet needs of education leaders. Will is pan update to the lawen ins a no child left behind and the elementary and secondary act. We make it a convenient place to find research aligned with the department of Ed's definitions and for those of you who are not in this space what this means is for many of our competition, you need to cite evidence of what you're doing has a strong research base and the clearing house is a source where you can find these evidence-based programs.

So what do we do? First, we screen studies to determine if they use a method that we were have standards for. Then we review studies, our is the of standards to see if they're strong enough to determine a causal impact. Then we synthesize the studies to see if the program works. Why? Often developers will develop an intervention that is a policy practice and shows there's research that it works. There's a link. The average will not have a strong enough research background to have to research and if the findings match. So let's give an example. Let's say a company creates a new program. They test it in new classrooms. They increase the test scales and promotion materials you would see it improve scores by 30 points. That sounds, great. You have no idea how many students using the normal program would have gained the same time forward. In they gained 30 points as well, as you can see in the chart, this is no better or worse but probably more expensive. So it may not be a good choice for you. But what if it showed a 40-point gain? You may get that from the advertisement. Similarly, it only had one school and two classrooms. It as hard to generalize especially because there might be other things about that school that makes that program work. So what do we do?

First we screen our studies goes these two documents. We see if they have a design strong enough for us to revivment example I gave a minute ago is not eligible. We ask these five questions to determine eligibility. Often teams 15 to 20 years. Then, is the design eligible. Some designs are too weak to evaluate and others we don't have standards for. Third is the population eligible. So if I were reviewing

interventions to help prepare students for school, and I'm looking for this protocol has general education students age three through five. If I have a study that is done with a population of 9-year-old, it won't be eligible. Third, if I'm looking for a program to help struggling readers, target interventions as opposed to interventions for the whole class. Lastly, is there an eligible outcome. If I'm looking to improve reading and there is a study but it only shows math outcome, it's a problem. I'm trying to find improvements on reading. Okay. So we determine the study is eligible.

Then we review the findings and decide the rating. We have three ratings, meet standards without reservation, which is the green box. Standards with reservations. So be a little cautious. There are some things that could make it uncertain. A nice reg is they do not meet our standards. So the flow chart here is for one type of study, an individualized random controlled trial. They are randomly assigned. A study of 500 students. The researchers use a random number generator to decide if students will get it. They're learning. The first thing we're going to look after determining it is how much of the sample changed. Did a lot of students drop out? If so, there's a worry that students who stayed in may be distorting the real impact of. It then if the students who left are different from the students who stayed and how those in the experimental version compared to the ones in the control group. The one on the left means they had high attrition. We will look to see if there's a problem. Then we'll look at the students in that control group to see if they're similar on key baseline measures and whether the authors used adjustments to try to control for any bias. So if we have a study where we think students are dropping out, it's a problem. So we would use a cautious attrition boundary. If students who dropped out, then we would see if the researchers adjust for observable differences. I realize it might be convoluted. So I will walk through some examples.

We'll get into our product but we want to give a baseline understanding of what we're talking about. Okay. So this is where we talked about attrition. If you look at the eligible sample here and we randomly assign two groups, you have the intervention group and the comparison group or control group. Looks like they both have the same number of 24. In this case, A, B, C, D grade point averages. The sample members in the follow-up, you can see the intervention group had a lot of students in the red and the comparison group had a lot more students in the green.

So in this case they look different. We want to make sure we're controlling for the fact that a lot of people left during the study, if we think that is a problem, which a lot of times it is.

Okay. So what do we mean by observed differences so. We will use this. This is similar. If you look at this chart you can see there's the same number of reds, same number of oranges, same number of yellows, same numbers of greens. Sometimes you have nine greens in the intervention group and there would mean more reds here. Sometimes it's not even, so you'll want to adjust so. That's what we call observed differences, things you can measure.

At the end of the intervention three students of grades of A plus, A and A and the controlled group B minutes, B. So in this case the intervention group score better. The controlled group had B, B and C the intervention group was strong academically. So if you were to convert these to a gpa you would seat kids in the intervention group would and up one grade bump a B plus to an A minutes. So the average gain was slightly higher in the intervention group but probably a small enough difference that it wasn't significant and smaller impact than what this looks like here.

So back to this chart that we looked at. What we do at the clearing house is we go through these ratings to adjust into account for all of these factors. So if we have a study with low attrition or high attrition

with the group being different at baseline and an adjustment strategy, then you could get a study. So a green study is that perfect study that no one leaves, everyone is randomly assigned. A yellow study is one where some people left and they adjusted for it or -- and/or some people left, but they were similar in the baseline. They were similar in the beginning, depending on what else is going on in the study. Okay. So that was a me summarizing a 200 page hand book down to a five-minute overview of what our methods are. I'm happy to go through those in the Q&A. But it's necessary to get into the products. You have to have that baseline.

So once we go through the process, we assign each study, each finding either with or without reservations and this is our confidence on the methods. This is not a claim of whether or not this works. So as you said, it meets without reservation. That's what we think of as a green study. Those are -- this is the highest rating a finding can receive and reserved for strong research and the highest degree of confidence. Even in there is no effect. It doesn't say that it worked. It just sales it's sound. There's a caution. It means due to natural limitations of the study design or circumstance, there are some other factors that may, some factors that could have caused observed effects.

Each finding is considered and by this each study will have impacts on different things. We will walk through it in a minute. This is a degree of completion is one finding. College enrollment is another and these are examples of findings. Each finding that is either. You can here there's more findings, so these are our main findings. The main finding is everyone they studied closest to the intervention. We also will look at supplement am findings, long term. So if a study has at least one main finding that meets standards without reservations, then the study one will meet without reservations. And if the study's highest meet standards with reservations, then the same thing applies. Similarly, if the study only has supplement ham findings, meaning it doesn't use independent measures, they are only eligible for standards with reservations because we have some concern about them not using what we call main findings. If none of the main or supplemental meet standards, it does not immediate standards.

Okay. So now we talked all about the study design and we get to do the fun stuff of whether or not the program has an impact. So the WWC characterizes by outcomes. These are the main findings by outcomes. Each one may have a sing many finding or several main findings that we would use to combine into one meta analytic. If there's one study with lots of students and one with a huge effect, it will have an average. You can see that through this particular study it met standards and there were, it had an impact of seven percentage points on degree or certificate of completion and 20 points on college readiness.

So, as I mentioned in the bang, the Department of Education uses evidence tiers. Applicants are required to cite studies, cite evidence. There are thresholds. The clearing house by attaching evidence ratings. These are tier one findings. So tier one means positive effect with no overpriding negative effects from women designed well executed experimental reach with sufficiently large sample. It's 350 students. A moderate evidence or noor two is positive effects. So it works but with no overriding negative effects from a women designed and well executed equals sigh experimental reach study. These are studies that normally meet standards with reservation. Promising evidence or door three are positive effects with no overriding negative effects from women designed and well executed experimental or quasi-experimental. This is messy on the screen. How we think of it, studies that either meet with or without reservations that are small samples. So if you're in 353 students or done in a single site, is typically how we think of this. So we think that it works, we don't know that -- it's just a very small sample. Uncertain effects is when we, when the statistical six is unknown or cannot be calculated.

We're not sure if it works or. Negative effects means there's evidence it does not work. So this has been a lot. We are going to look at what we produced and get a tour of the website.

So we have three types of products. They're used in individual studies, intervention reports and practice guides. I will talk about how you can use these in your work. All right so. We are on our website which is what works at.gov. You can see there's a redirect here. So I am going to make this here. We are going to be launching some major changes to our home page in the next month or two. So if you view this after your summer break and this looks different, it will be really, really cool. I was hoping to demo it but it's not ready yet. But more on that in the future. Okay. So here you can see -- we ignore chalk board because it's going away. We are going to start with the green box or reviews of individual studies. My computer is going slow. That's why I have all the tabs open in case the network kicks me off. So this is a long list of every single study that we have reviewed in our history. If you scroll down you can see. This means that the study is available in Eric and this uses the Eric abstract. It provides meta data to help researchers find the study. So I recommend using the reviews of individual studies tool if you are going to look for a specific study to see if we've reviewed this. This should not be where you do your literature view but it would be great to do in a tool like Eric. Hey, there is a study. Have you done something on a particular intervention. I'm going to look up a particular author, Julie Sarama and I'm searching by her last name. There are 19 of which she is the author or coauthor. If you click on this, we're going to go here because it's loading. This is what the paper opens to. What you can see here is this is a single paper. It is an Eric. You can download the direct copy. You can click to go back to the study. It's loading all right. We're here. You vast citation, the link to Eric, random controlled trial with 1, 335 students in precan K. This dropdown shows it was reviewed twice. The first was a practice guide that I'm hoping we will get out this summer. It is fantastic. The second time was for the guide on teaching math which I will show you later. If you scroll down here, you can see tha -- okay you can see the title has some stuff aanded to. It this talks about what contrast there was. This is a sign if there are multiple experiments. The WWC has reviewed both. It looks at implementing the building blocks curriculum versus the curriculum they were using. In this case it was where brought futures begins or the opening of the world learning curriculum. If you opened up the study, there were a couple other that they included in the same man now script but we are backing them apart for the clearing house review.

Okay. We are going to scream down. The first one is review details, meets standards without reservations. You can see which protocol. It also, this is a version of standards. We are releasing the 5-0 hand book. You have the rating. Then you will click on the findings. You can see it's research-based assessment. The improvement index was 178 point. This one got a tier one badge. This is going through the department of Ed server so you're seeing weird boxes. We can see unlike what I dem mode earlier, there are no supplement am findings, only this one main finding.

Next, we'll go to sample characteristics. I promise you this looks better outside of the server. 14% of English language learners. 885% free lunch. You can see the intervention group, support for implementation. I use this as a cheat sheet. If I'm conducting a review, soils it's mudfulled I get a summary of what the how tokers said. It's much more in plain language, easy to understand and to make sure I understand what this study did and what they found in an unbiased way. That is why we link to these from the ERIC page. Oftentimes these studies are just very complicated to understanding and reading this summary page really helps you understand what did you do, how did they do it, what did they find. I refer to this a my cliff notes. Okay. So now we will go back to the home page tend went okay and we will look at the purple bomb which is practice guides. This is what we -- I think is the most useful product that the clearing house puts out. Practice guides is a publications is a publication that presents recommendations for educators to address challenges in the classrooms. We currently have 28 practice

guides available. Okay. So we're going to look at our newest practice guide which is preparing reading interventions for students in grades four through nine. You can see there are four recommendations on things educators can do to help improve.

ing skills. Three are strong evidence and one is moderate evidence.

If you go up here, you can click the full text of the guide. It's a big guide and you can scroll down and you can, you can see it's big and comprehensive. Each recommendation of the four has a lot of details, how to carry out the recommendation. Then you're going to have examples. Here's an example of how a teacher can implement this. You will see how two steps, example dialogues you can use. Resources. This is a long one. Then you will get to potential obstacles and how to address these obstacles. These are designed to be user friendly and engaging, something teachers can really use in their professional development. So if we go back to the landing page, they give more information on the target audience and related resources. You can see this is our panel of experts, so we have researchers as well as practitioners, educators who serve work on each of the guides.

You also have our related resource. Since this is a new guide, there are only two resources out right now, webinar and a slide deck. We also have a summary and longer summary here, depending on what the purpose is, and if you click this link, this is how you can see all of the studies that contributed to the guide with links to both ERIC and the study pages that I showed you earlier. The studies that we review were combined into a meta analysis to create this guide and to make this as engaging as possible. Okay. So now I'm going to go back to our list of practice guides and scroll down to my favorite, which is foundational skills. For the clearing house I mainly work on pre-K. What we will do. Let's see in this opened up. Okay.

So this is an older guide. I will see in this will open for us. You can see there are four recommendations here. Two are strong, one is moderate and one is minimal. That does not mean it does not work. It means the panel has really strong reason to work based off of their experience and expertise but we don't have strong research on this yet. So there's some research that's not as strong as we would like. You can see that we have tips, a summary and the heart of the practice guide is similar to what you saw before with examples, lots of examples, obstacles and panels advice. So this is a really kind of -- it's different formatting, very user friendly. What we then did is we created all of these, if you click on the related resources tab, because it's an old practice guide, has lots and lots of resource associated with it. I will preview a fall. First, we are going to have what is our professional learning community facilitator's guide. So what this is is our sister program, the regional educational laboratory southeast and it's based off of this practice guide. So if you click on this, which is right here, you get this really awesome facilitator's guide that goes through week by week of professional development. All right. So what you can see is lots and lots of interesting materials, but it tells you what you need to do. So you will need practice guide, laptop, sticky notes. There are work books here, participant activities. So it's designed for you to sit down as a team, go through page by page, really talk about it and the guide for who leads it shows exactly what part you should look at, what your session goals are, what you will be doing, step by step on how to structure. The coolest thing about this. We're in the going to play this. It won't show up on the screen. Let me see if I can get it the without playing. We have a series of 38 videos that are actual teachers demonstrating what you should be doing in classrooms with actual children. These are not actors. You can tell that by how they behave. They are real classrooms and real teachers. It's amazing to see how to take the research-based recommendations and combine all of them into practice.

You can also see how it looks. All right. So this is something I find really use testimony and our regional educational laboratories we have these for two products. The program is in the process of making these. Okay. So now I'm going to be is you one more spinoff product. This has a bit of a history on this. We are going to look at supporting your child's reading at home. The REL was beginning to look on supporting family involvement in foundation level reading skills. So taking this guide for kindergarten, first grade, second grade and third graders. So how to take the guide and translate it in a way where you have families do these activities at home. They were really working on this. It was going through peer review. March 2020 hit and we asked them to expedite the product and into the hands of parents faster, as many of us got the joy of unexpected home schooling for several months.

So what they did is they took the same things in these guys. Teachers can use the guides but parties can also vast same kind of activities based off of these, based off of the research. . I have a kindergartner and I've piloted this with my kindergartner. These activities are great and engaging and felt helped him make a difference. We also see actual parent talking to their actual children in actual quarantine. Those were in D.C. So it helps play out how does this work and how can you implement these high level study recommendations in these conversations with your children. There are these really come handouts that go along handbook mark that you can use to help remind you of what to do.

All right. So these are all of our activities for this guide. Highlighting them is because I think these are the most use testimony things to get into the hands of educator it is. While our researchers appreciate this, our educators love the practice guides and these have the ability to make such an improvement on practice. Okay. Now the last thing I'm going to show you, my former boss refers to this as the bread and butter products. They are systemic reviews of a given intervention. Many of these are branded intervention like curricula. We have nonbranded like growth mind-set, which is what we'll be showing. We have post secondary, because it's by newest. You can see these are programs that you can buy to implement in your classroom.

Okay. We're going to click on growth mind-set. It claims to improve college persistence and academic achievement by getting students to view intelligence as a malleable characteristic that grows with effort. So they reviewed ten studies of growth mind-set and six met WWC standards. Those six are synthesized into themes findings. When we look at three different outlook demands, academic achievement had a moderate impact. No discernible effects only college enrollment or progressing in college. This is a cute little fun graphic that's currently being blocked. If you scroll up, you can download our full report I going to preview these real quick. So the full report is normally around 15 pages and has lots of information about what studies met, what studies didn't meet standards. They have higher level details. They have where the study was conducted, what grades. They have detailed, detailed evidence on each study. They normally have cost implications. It tells us the cost to implement these right here, to really kind of get a sense of whether or not implementing this intervention makes sense in your contexts.

What you can see is our brief is a four-percent summary. Again, you have the same types of findings. You don't have as much detail but high level statistics, where the study was created, the demographics and the like. Lastly, we have the one-page summary which has a lot of information if you're trying to get a scan to see if it would be a good pick for your program. If we go back, scroll down here's the review protocol. Here as how you can see related studies and these are 15 studies on growth mind-set and what you can see here is there were ten eligible studies reviewed. This includes studies that were in the eligible to be reviewed and studies reviewed afterwards. So the number doesn't always match. Okay. So I've talked about our standards, our procedures, our publication and websites. I'm sure you have a bunch of questions. If you type them into the chat, I will tell you where to find the resources and then

we'll go to this. The first thing we can do is to find resources, we are going to scroll down and click row sources for educators on the home page. You can see it by topic. You can see these are all on practice guys but you can also see about our website, about evidence tiers. There's a lot here, and there's generally you can find answers to everything here and really good next.

If you hover over to the main hover you can go to the FAQs and find a detailed list of FAQs. We have videos and info graphics embedded in here. These can be a really good source of information if you have a specific question that you are looking for. Lastly, we have a help desked you should always feel free to contact us. We'll get back to you very quickly. This is a great way to get any of your questions answered. Our experts are answering this. And there's no question too advanced. So that was a lot and I'm really looking forward to seeing what kind of questions you have.

Thanks, Erin. If you have questions for Erin, please chat them in the chat box and be sure to put all participants. I will give you a couple seconds to type in any questions you may have.

Well, I don't see any questions, so I will give it another minute but if you have questions later, you can contact us through the help desk or reach out to me. My email address is on the screen.

And while we're waiting for any questions to come in I will let you know about some upcoming webinar. On June 16, National Oceanic Atmospheric Administration re pose Torrey. So I will place a link to that if you're interested in signing up for. That on June 22nd inside the monthly labor report 107 years of historic data. Again, I'll place the link. Ashley has put in the chat bomb our satisfaction survey. So if you wouldn't mind filling that out that would help us. Give it another couple minutes in case anyone has any questions. I see a question. It asks the living above to Erin's webinar recording is the content similar to today's content. The answer to that is no. Erin's other webinar was on ERIC. So go ahead and check that out. We're recording this webinar. After the webinar you'll receive a link to the recording as well as a copy of the slide deck.

Great. Well, thank you, everyone.

All right. I'm not seeing any questions. Again, if you do have any, Erin's did the her contact information on the screen. So feel free to reach out. I want to thank everyone for attending today's webinar and thank you, Erin, for another ABC and looking forward to seeing you at another FDLP webinar.

Thank you. [Event Concluded]