1

00:00:02,949 --> 00:00:08,000

welcome to assessing preventing and

2

00:00:05,899 --> 00:00:10,219

overcoming reading difficulties a

3

00:00:08,000 --> 00:00:12,950

professional learning series presented

4

00:00:10,219 --> 00:00:15,160

by David Kilpatrick sponsored by the

5

00:00:12,950 --> 00:00:18,200

exceptional student services unit and

6

00:00:15,160 --> 00:00:20,450

created in collaboration with specific

7

00:00:18,200 --> 00:00:24,230

learning disability specialists Jill

8

00:00:20,450 --> 00:00:26,510

Marshall and Veronica Fiedler the

9

00:00:24,230 --> 00:00:28,760

Colorado Department of Education vision

10

00:00:26,510 --> 00:00:30,830

is that all students in Colorado will

11

00:00:28,760 --> 00:00:33,289

become educated and productive citizens

12

00:00:30,830 --> 00:00:36,710

capable of succeeding in society

13

00:00:33,289 --> 00:00:39,530

the workforce and life the mission of

14

00:00:36,710 --> 00:00:42,589

the CDE is to ensure all students are

15

00:00:39,530 --> 00:00:45,230

prepared for success in society work and

16

00:00:42,589 --> 00:00:48,289

life by providing excellent leadership

17

00:00:45,230 --> 00:00:52,219

service and support to schools districts

18

00:00:48,289 --> 00:00:54,260

and communities across the state this

19

00:00:52,219 --> 00:00:57,519

series is designed for use in multiple

20

00:00:54,260 --> 00:00:59,690

ways you can complete all 13 modules

21

00:00:57,519 --> 00:01:01,729

participants who engage in all 13

22

00:00:59,690 --> 00:01:03,499

modules will be provided a comprehensive

23

00:01:01,729 --> 00:01:06,680

learning experience encompassing

24

00:01:03,499 --> 00:01:08,960

research impact and critical elements of

25

00:01:06,680 --> 00:01:12,020

assessing preventing and overcoming

26

00:01:08,960 --> 00:01:15,230

reading difficulties you can complete

27

00:01:12,020 --> 00:01:17,750

individual modules participants may view

28

00:01:15,230 --> 00:01:19,700

a session or sessions for specific

29

00:01:17,750 --> 00:01:22,280

information and guidance on topics

30

00:01:19,700 --> 00:01:24,770

related to assessing preventing and

31

00:01:22,280 --> 00:01:27,230

overcoming reading difficulties this

32

00:01:24,770 --> 00:01:29,570

format is ideal for short professional

33

00:01:27,230 --> 00:01:31,670

development opportunities for example

34

00:01:29,570 --> 00:01:34,310

during an impact team meeting or

35

00:01:31,670 --> 00:01:36,230

professional learning community you can

36

00:01:34,310 --> 00:01:39,440

also complete this as a book or chapter

37

00:01:36,230 --> 00:01:42,170

study participants may view all or part

38

00:01:39,440 --> 00:01:44,720

of the series as a tandem companion or

39

00:01:42,170 --> 00:01:46,730

supplemental resource for supporting a

40

00:01:44,720 --> 00:01:48,710

study of the book the essentials of

41

00:01:46,730 --> 00:01:50,590

assessing preventing and overcoming

42

00:01:48,710 --> 00:01:52,649

reading difficulties

43

00:01:50,590 --> 00:01:52,649

you

44

00:02:01,600 --> 00:02:08,210

module 11 effective interventions for

45

00:02:04,880 --> 00:02:15,140

reading difficulties session 1 how do we

46

00:02:08,210 --> 00:02:17,060

determine what is effective hi my name

47

00:02:15,140 --> 00:02:19,280

is David Kilpatrick and I am your

48

00:02:17,060 --> 00:02:21,620

presenter for the 13 on-demand webinars

49

00:02:19,280 --> 00:02:23,630

and as a result of these webinars our

50

00:02:21,620 --> 00:02:26,030

hope is that participants will learn to

51

00:02:23,630 --> 00:02:27,860

apply the research on reading to

52

00:02:26,030 --> 00:02:31,370

assessing preventing and overcoming

53

00:02:27,860 --> 00:02:33,230

reading difficulties we are now

54

00:02:31,370 --> 00:02:36,440

beginning module 11 you see an overview

55

00:02:33,230 --> 00:02:38,270

of all 13 modules module 11 has four

56

00:02:36,440 --> 00:02:39,709

sessions and this is the first session

57

00:02:38,270 --> 00:02:42,410

addressing the question of how do we

58

00:02:39,709 --> 00:02:45,770

actually determine if an intervention is

59

00:02:42,410 --> 00:02:47,870

effective as a result of this session

60

00:02:45,770 --> 00:02:50,540

participants will be able to identify

61

00:02:47,870 --> 00:02:52,820

five different ways of determining

62

00:02:50,540 --> 00:02:55,790

intervention effectiveness and learn why

63

00:02:52,820 --> 00:02:57,410

four of them are inadequate participants

64

00:02:55,790 --> 00:02:58,880

will also be able to provide examples of

65

00:02:57,410 --> 00:03:01,670

an inadequate attempts to determine

66

00:02:58,880 --> 00:03:03,380

intervention effectiveness and identify

67

00:03:01,670 --> 00:03:05,750

a valid way to determine effectiveness

68

00:03:03,380 --> 00:03:10,010

of interventions for word level reading

69

00:03:05,750 --> 00:03:12,140

difficulties here are five ways you can

70

00:03:10,010 --> 00:03:16,610

determine if an intervention is

71

00:03:12,140 --> 00:03:18,980

effective an informal assessment raw

72

00:03:16,610 --> 00:03:20,690

score improvements statistically

73

00:03:18,980 --> 00:03:22,880

significant differences between groups

74

00:03:20,690 --> 00:03:25,160

when you compare one intervention versus

75

00:03:22,880 --> 00:03:30,019

another or an intervention versus no

76

00:03:25,160 --> 00:03:31,730

intervention effect sizes and standard

77

00:03:30,019 --> 00:03:34,489

score point gains on nationally normed

78

00:03:31,730 --> 00:03:37,250

tests let's take a look at each one of

79

00:03:34,489 --> 00:03:39,080

those informal assessment you're

80

00:03:37,250 --> 00:03:41,209

watching the child reading you say hey

81

00:03:39,080 --> 00:03:44,720

seems to be improving the problem is

82

00:03:41,209 --> 00:03:46,370

that's very subjective and it's not very

83

00:03:44,720 --> 00:03:48,350

concrete and it's hard to know if the

84

00:03:46,370 --> 00:03:50,030

child's really progressing particularly

85

00:03:48,350 --> 00:03:51,680

relative to their peers so yes maybe

86

00:03:50,030 --> 00:03:54,070

they are doing better but they might be

87

00:03:51,680 --> 00:03:56,150

getting farther behind at the same time

88

00:03:54,070 --> 00:04:00,709

you don't really have a good point of

89

00:03:56,150 --> 00:04:02,540

reference raw score improvements seem to

90

00:04:00,709 --> 00:04:04,940

be pervasive in education in fact

91

00:04:02,540 --> 00:04:08,000

progress monitoring within MTSS is

92

00:04:04,940 --> 00:04:10,520

based on raw score improvements you see

93

00:04:08,000 --> 00:04:12,260

how many correct words per minute

94

00:04:10,520 --> 00:04:15,020

how that changes from week to week or

95

00:04:12,260 --> 00:04:16,910

every other week or once a month but

96

00:04:15,020 --> 00:04:19,570

think of a race analogy let's think

97

00:04:16,910 --> 00:04:21,290

let's think of a distance race where

98

00:04:19,570 --> 00:04:23,030

students have to run around the track

99

00:04:21,290 --> 00:04:26,300

eight times and there's ten runners and

100

00:04:23,030 --> 00:04:28,100

the runner who is in tenth place may be

101

00:04:26,300 --> 00:04:29,780

moving forward but it's getting farther

102

00:04:28,100 --> 00:04:31,820

and farther behind the point I'm trying

103

00:04:29,780 --> 00:04:33,530

to make is that you can demonstrate raw

104

00:04:31,820 --> 00:04:35,810

score improvements and still be getting

105

00:04:33,530 --> 00:04:38,860

farther and farther behind because the

106

00:04:35,810 --> 00:04:42,290

rate of growth in terms of raw scores of

107

00:04:38,860 --> 00:04:43,940

peers who are not struggling may be far

108

00:04:42,290 --> 00:04:45,500

more accelerated than the kind of rate

109

00:04:43,940 --> 00:04:50,150

of growth that a struggling reader may

110

00:04:45,500 --> 00:04:51,980

have statistical significance is

111

00:04:50,150 --> 00:04:53,990

included and many if not most

112

00:04:51,980 --> 00:04:55,640

intervention studies and are commonly

113

00:04:53,990 --> 00:04:57,350

reported in the research literature and

114

00:04:55,640 --> 00:04:59,090

they're reported in abstracts and

115

00:04:57,350 --> 00:05:01,570

unfortunately sometimes they don't use

116

00:04:59,090 --> 00:05:05,390

the word statistical they'll simply say

117

00:05:01,570 --> 00:05:08,180

the intervention showed significant

118

00:05:05,390 --> 00:05:09,260

gains compared to the control group well

119

00:05:08,180 --> 00:05:10,970

the reason they leave out the word

120

00:05:09,260 --> 00:05:13,760

statistical is very often those

121

00:05:10,970 --> 00:05:15,740

abstracts have tight word limits another

122

00:05:13,760 --> 00:05:18,440

problem with abstracts reporting such

123

00:05:15,740 --> 00:05:20,840

gains is that if you don't have access

124

00:05:18,440 --> 00:05:22,640

to a university account you can't you

125

00:05:20,840 --> 00:05:24,710

can't see these journal articles but

126

00:05:22,640 --> 00:05:26,630

almost all the abstracts are online on

127

00:05:24,710 --> 00:05:28,820

the journals and that may be the only

128

00:05:26,630 --> 00:05:30,200

thing people are exposed to and based on

129

00:05:28,820 --> 00:05:32,300

that abstract they might come to the

130

00:05:30,200 --> 00:05:35,960

conclusion that a particular

131

00:05:32,300 --> 00:05:37,700

intervention is effective the problem is

132

00:05:35,960 --> 00:05:40,430

that by its very nature statistical

133

00:05:37,700 --> 00:05:42,830

significance is not capable of telling

134

00:05:40,430 --> 00:05:46,820

you if an intervention is effective it's

135

00:05:42,830 --> 00:05:48,560

only able to tell you the likelihood

136

00:05:46,820 --> 00:05:50,440

that the difference between an

137

00:05:48,560 --> 00:05:52,700

experimental group and control group is

138

00:05:50,440 --> 00:05:55,220

not based on some sort of coincidence

139

00:05:52,700 --> 00:05:58,370

the greater the statistical significance

140

00:05:55,220 --> 00:06:00,830

the less likely the differences between

141

00:05:58,370 --> 00:06:02,270

the groups is based on chance that's all

142

00:06:00,830 --> 00:06:03,710

it's telling you you could have an

143

00:06:02,270 --> 00:06:05,630

experimental group in a control group

144

00:06:03,710 --> 00:06:07,400

and both may be very effective but they

145

00:06:05,630 --> 00:06:09,380

may not be different from each other and

146

00:06:07,400 --> 00:06:11,300

you don't have statistical significance

147

00:06:09,380 --> 00:06:13,010

on the other hand you can have an

148

00:06:11,300 --> 00:06:15,200

experimental group that is statistically

149

00:06:13,010 --> 00:06:17,180

higher than a control group and both of

150

00:06:15,200 --> 00:06:19,280

them do poorly the experimental group

151

00:06:17,180 --> 00:06:21,830

just did less poorly than the control

152

00:06:19,280 --> 00:06:24,050

group effect size is a virtual

153

00:06:21,830 --> 00:06:25,910

requirement in terms of reporting

154

00:06:24,050 --> 00:06:27,949

on an intervention study for a research

155

00:06:25,910 --> 00:06:30,770

journal effect size is used in many

156

00:06:27,949 --> 00:06:32,509

fields including medicine and due to its

157

00:06:30,770 --> 00:06:34,280

pervasiveness in the scientific

158

00:06:32,509 --> 00:06:36,520

literature I think it's the most

159

00:06:34,280 --> 00:06:39,530

potentially misleading index of

160

00:06:36,520 --> 00:06:42,770

effectiveness why do I say that

161

00:06:39,530 --> 00:06:44,560

well because it's technically incapable

162

00:06:42,770 --> 00:06:47,449

of telling us if a program is effective

163

00:06:44,560 --> 00:06:50,270

it can only tell us if the program was

164

00:06:47,449 --> 00:06:52,940

better than the control program in that

165

00:06:50,270 --> 00:06:55,639

particular study if an ineffective

166

00:06:52,940 --> 00:06:58,159

program is less ineffective than the

167

00:06:55,639 --> 00:07:00,949

control program the effect size makes it

168

00:06:58,159 --> 00:07:03,349

look effective it can't tell you if kids

169

00:07:00,949 --> 00:07:05,000

are catching up it can only tell you how

170

00:07:03,349 --> 00:07:06,830

they did compared to a control group you

171

00:07:05,000 --> 00:07:10,039

see statistical significance simply

172

00:07:06,830 --> 00:07:12,259

tells you if the groups are likely to be

173

00:07:10,039 --> 00:07:13,940

different effect size can talk about the

174

00:07:12,259 --> 00:07:17,870

magnitude of that difference between

175

00:07:13,940 --> 00:07:20,270

groups but it's still only giving you a

176

00:07:17,870 --> 00:07:22,699

point of reference to a local specific

177

00:07:20,270 --> 00:07:24,919

control group not to all the other

178

00:07:22,699 --> 00:07:28,099

children in a given age group let me

179

00:07:24,919 --> 00:07:31,130

give you some examples of how effect

180

00:07:28,099 --> 00:07:34,039

sizes can be misleading in the Journal

181

00:07:31,130 --> 00:07:35,900

of learning disabilities in 2012 a study

182

00:07:34,039 --> 00:07:38,449

was reported that had a 0.49

183

00:07:35,900 --> 00:07:41,900

effects eyes and more reading just so I

184

00:07:38,449 --> 00:07:44,569

understand effect size a 1.0 that is a

185

00:07:41,900 --> 00:07:47,120

positive 1.0 is one standard

186

00:07:44,569 --> 00:07:48,560

deviation above the mean so let's just

187

00:07:47,120 --> 00:07:50,330

orient ourselves for a minute with that

188

00:07:48,560 --> 00:07:51,860

those of you who are educational

189

00:07:50,330 --> 00:07:53,569

professionals you've heard of scores

190

00:07:51,860 --> 00:07:56,539

being reported where a hundred is the

191

00:07:53,569 --> 00:08:00,500

midpoint and a standard deviation is 15

192

00:07:56,539 --> 00:08:02,029

and in this case we have to translate a

193

00:08:00,500 --> 00:08:03,680

little bit so now we're gonna say zero

194

00:08:02,029 --> 00:08:07,250

is the midpoint and a standard deviation

195

00:08:03,680 --> 00:08:10,039

is 1 so 1.0 in this context

196

00:08:07,250 --> 00:08:11,509

would be considered like at 115 on a

197

00:08:10,039 --> 00:08:12,680

test where hundreds the mean I hope

198

00:08:11,509 --> 00:08:13,630

you're I hope you're following me on

199

00:08:12,680 --> 00:08:17,330

this

200

00:08:13,630 --> 00:08:19,789

so 0.49 effect size is pretty close to

201

00:08:17,330 --> 00:08:21,620

0.5 and that would be about a 7.5

202

00:08:19,789 --> 00:08:23,509

standard score point difference that's

203

00:08:21,620 --> 00:08:25,159

the implication of 7 standard score

204

00:08:23,509 --> 00:08:27,199

point difference improvement now that

205

00:08:25,159 --> 00:08:29,180

may not allow a child to catch up but

206

00:08:27,199 --> 00:08:31,159

you are likely to notice a difference if

207

00:08:29,180 --> 00:08:35,510

a child has a 7th standard score point

208

00:08:31,159 --> 00:08:37,060

improvement in the reading however when

209

00:08:35,510 --> 00:08:38,919

they based it on national norms

210

00:08:37,060 --> 00:08:40,630

they had a zero standard score point

211

00:08:38,919 --> 00:08:43,990

improvement well where did the point

212

00:08:40,630 --> 00:08:45,730

four nine effect size come from well it

213

00:08:43,990 --> 00:08:48,550

came from the fact that the control

214

00:08:45,730 --> 00:08:50,410

group went down during the study and as

215

00:08:48,550 --> 00:08:53,260

a result the effect size that you're

216

00:08:50,410 --> 00:08:55,779

looking at has to do with the comparison

217

00:08:53,260 --> 00:08:59,380

group not with how well the kids did and

218

00:08:55,779 --> 00:09:03,520

if they caught up also in the Journal of

219

00:08:59,380 --> 00:09:05,020

learning disabilities in 2017 there was

220

00:09:03,520 --> 00:09:07,360

an experimental group that had a

221

00:09:05,020 --> 00:09:09,430

 0.96 effect size that's quite strong

222

00:09:07,360 --> 00:09:11,260

that's very impressive that is

223

00:09:09,430 --> 00:09:12,880

equivalent to about a fourteen standard

224

00:09:11,260 --> 00:09:15,160

score point gain it's nearly a full

225

00:09:12,880 --> 00:09:17,320

standard deviation 1.0 being

226

00:09:15,160 --> 00:09:20,680

a standard deviation above the mean in

227

00:09:17,320 --> 00:09:22,240

this case they did one hundred hours of

228

00:09:20,680 --> 00:09:25,270

one-on-one instruction in a summer

229

00:09:22,240 --> 00:09:28,210

program and got those kind of apparent

230

00:09:25,270 --> 00:09:31,089

gains here's the problem when they

231

00:09:28,210 --> 00:09:33,360

looked at nationally normed assessments

232

00:09:31,089 --> 00:09:36,279

of reading they made less than one

233

00:09:33,360 --> 00:09:39,460

standard score point of improvement in

234

00:09:36,279 --> 00:09:43,360

fact it was barely above half a standard

235

00:09:39,460 --> 00:09:46,089

score point that is far lower than the

236

00:09:43,360 --> 00:09:48,160

effect size suggests why did that happen

237

00:09:46,089 --> 00:09:51,339

it happened because the control group of

238

00:09:48,160 --> 00:09:52,720

poor readers went down dramatically over

239

00:09:51,339 --> 00:09:54,310

the summer they weren't getting that

240

00:09:52,720 --> 00:09:55,839

kind of summer instruction here's

241

00:09:54,310 --> 00:09:58,690

another example of misleading effect

242

00:09:55,839 --> 00:10:01,060

size the previous two make an ineffective

243

00:09:58,690 --> 00:10:02,200

approach look effective but the reverse

244

00:10:01,060 --> 00:10:04,710

can happen as well

245

00:10:02,200 --> 00:10:07,780

in annals of dyslexia in 2010 an

246

00:10:04,710 --> 00:10:10,180

experimental group had 0.53 effect size

247

00:10:07,780 --> 00:10:11,860

that's okay it's about the same as that

248

00:10:10,180 --> 00:10:14,200

point four nine they're basically a

249

00:10:11,860 --> 00:10:16,210

statistical dead heat the 0.49 from the

250

00:10:14,200 --> 00:10:18,610

previous slide and what that suggests is

251

00:10:16,210 --> 00:10:21,160

about a seven to eight standard

252

00:10:18,610 --> 00:10:22,990

score point improvement however they

253

00:10:21,160 --> 00:10:25,390

made a twenty two standard score point

254

00:10:22,990 --> 00:10:27,310

improvement these kids went from below

255

00:10:25,390 --> 00:10:28,600

average to low average from low average

256

00:10:27,310 --> 00:10:31,570

to average these kids were making

257

00:10:28,600 --> 00:10:33,550

amazing gains well why the 0.53 effect

258

00:10:31,570 --> 00:10:36,730

size the control group in that

259

00:10:33,550 --> 00:10:39,130

particular school had been using a very

260

00:10:36,730 --> 00:10:40,950

effective program and they gained 14

261

00:10:39,130 --> 00:10:44,350

standard score points during that study

262

00:10:40,950 --> 00:10:46,839

I'd estimate 90% that's conservative

263

00:10:44,350 --> 00:10:48,520

it's probably higher than 90% of

264

00:10:46,839 --> 00:10:49,939

experimental groups in the intervention

265

00:10:48,520 --> 00:10:51,739

research never get

266

00:10:49,939 --> 00:10:54,709

results 14 standard score points are

267

00:10:51,739 --> 00:10:55,970

higher only a small select set of

268

00:10:54,709 --> 00:10:57,769

studies that we'll be talking about

269

00:10:55,970 --> 00:11:00,799

later in this module get scores that

270

00:10:57,769 --> 00:11:03,079

high interestingly it's referred to as a

271

00:11:00,799 --> 00:11:04,609

control group but yet the researchers

272

00:11:03,079 --> 00:11:06,679

have no control over it they go into a

273

00:11:04,609 --> 00:11:08,269

school and whatever remediation approach

274

00:11:06,679 --> 00:11:11,119

the school happens to be using is their

275

00:11:08,269 --> 00:11:14,179

comparison group the whole point is that

276

00:11:11,119 --> 00:11:17,059

the effect size is measuring a moving

277

00:11:14,179 --> 00:11:19,669

target it can determine magnitude of

278

00:11:17,059 --> 00:11:22,189

differences between groups that goes

279

00:11:19,669 --> 00:11:24,379

beyond just statistical significance but

280

00:11:22,189 --> 00:11:26,509

it can't determine the improvement

281

00:11:24,379 --> 00:11:29,299

relative to the norm group look at those

282

00:11:26,509 --> 00:11:31,459

three examples that I just gave once we

283

00:11:29,299 --> 00:11:33,799

understand this about the limitations of

284

00:11:31,459 --> 00:11:40,489

effect size we need to be very cautious

285

00:11:33,799 --> 00:11:42,619

about those efforts to base conclusions

286

00:11:40,489 --> 00:11:43,729

about effectiveness on effect size and

287

00:11:42,619 --> 00:11:46,069

that includes the What Works

288

00:11:43,729 --> 00:11:47,689

Clearinghouse it includes bestevidence.org

289

00:11:46,069 --> 00:11:50,809

the National Reading Panel

290

00:11:47,689 --> 00:11:53,539

also based their findings on effect size

291

00:11:50,809 --> 00:11:55,159

however this doesn't affect them why

292

00:11:53,539 --> 00:11:57,619

doesn't it affect them simply because

293

00:11:55,159 --> 00:11:59,509

they looked at dozens of studies I gave

294

00:11:57,619 --> 00:12:01,549

you individual studies and there was

295

00:11:59,509 --> 00:12:03,769

very odd variation within those studies

296

00:12:01,549 --> 00:12:06,139

but the National Reading Panel looked at

297

00:12:03,769 --> 00:12:07,909

dozens of studies that showed that when

298

00:12:06,139 --> 00:12:09,199

you teach letter-sound skills to

299

00:12:07,909 --> 00:12:11,679

children and phonological awareness

300

00:12:09,199 --> 00:12:14,389

skills to children those children

301

00:12:11,679 --> 00:12:16,939

outperform all the other approaches that

302

00:12:14,389 --> 00:12:18,829

they were compared to and so we can

303

00:12:16,939 --> 00:12:21,259

still conclude that instruction in

304

00:12:18,829 --> 00:12:24,109

phonological awareness and phonics is

305

00:12:21,259 --> 00:12:27,169

superior to those other approaches even

306

00:12:24,109 --> 00:12:28,909

if we don't have a norm reference group

307

00:12:27,169 --> 00:12:30,589

that they're being compared to the

308

00:12:28,909 --> 00:12:31,939

reality is in many of the studies they

309

00:12:30,589 --> 00:12:36,349

did have a norm reference group and they

310

00:12:31,939 --> 00:12:38,839

made some pretty good gains standard

311

00:12:36,349 --> 00:12:42,649

score point gains based on nationally

312

00:12:38,839 --> 00:12:45,949

normed assessments can tell us if an

313

00:12:42,649 --> 00:12:48,049

intervention is effective why because

314

00:12:45,949 --> 00:12:50,419

it's the only approach that we have they

315

00:12:48,049 --> 00:12:51,679

can tell us if kids are catching up how

316

00:12:50,419 --> 00:12:52,970

do you know if you're catching up if you

317

00:12:51,679 --> 00:12:55,159

don't know how everybody else is doing

318

00:12:52,970 --> 00:12:56,629

that's what a whole normed test is about

319

00:12:55,159 --> 00:12:58,879

you're being compared to other kids the

320

00:12:56,629 --> 00:13:00,949

same age across the country there are

321

00:12:58,879 --> 00:13:03,049

fairly strong inter correlations among

322

00:13:00,949 --> 00:13:03,800

the major word identification sub tests

323

00:13:03,049 --> 00:13:05,899

from the leading

324

00:13:03,800 --> 00:13:08,690

achievement batteries so you can have

325

00:13:05,899 --> 00:13:10,220

children take this word identification

326

00:13:08,690 --> 00:13:11,540

test or that word identification test

327

00:13:10,220 --> 00:13:14,120

and they're gonna correlate very highly

328

00:13:11,540 --> 00:13:18,500

what that suggests is they're all doing

329

00:13:14,120 --> 00:13:20,540

a pretty good job of estimating the word

330

00:13:18,500 --> 00:13:23,180

level reading skills of those children

331

00:13:20,540 --> 00:13:25,040

at those age levels this isn't the case

332

00:13:23,180 --> 00:13:27,740

with reading comprehension because as we

333

00:13:25,040 --> 00:13:29,540

learn from a previous module that the

334

00:13:27,740 --> 00:13:31,190

correlation among the various reading

335

00:13:29,540 --> 00:13:35,560

comprehension sub tests is not very

336

00:13:31,190 --> 00:13:38,060

impressive now certainly normed

337

00:13:35,560 --> 00:13:40,550

assessments such as this are not useful

338

00:13:38,060 --> 00:13:42,380

for routine weekly or monthly progress

339

00:13:40,550 --> 00:13:45,230

monitoring although there are progress

340

00:13:42,380 --> 00:13:47,269

monitoring approaches that are normed

341

00:13:45,230 --> 00:13:49,120

and that would be very useful in this

342

00:13:47,269 --> 00:13:51,950

regard so you're not just relying upon

343

00:13:49,120 --> 00:13:53,899

raw score gains but raw score gains can

344

00:13:51,950 --> 00:13:56,440

be a useful tool and I'm not trying to

345

00:13:53,899 --> 00:13:59,390

deny that however we have to be careful

346

00:13:56,440 --> 00:14:01,279

when we use raw scores to not make the

347

00:13:59,390 --> 00:14:03,290

mistake of assuming that kids are

348

00:14:01,279 --> 00:14:05,060

catching up because they need to be

349

00:14:03,290 --> 00:14:06,589

compared to other kids their same age to

350

00:14:05,060 --> 00:14:08,270

determine if that's actually happening

351

00:14:06,589 --> 00:14:09,890

and to determine if the intervention

352

00:14:08,270 --> 00:14:12,920

that you're using is really working with

353

00:14:09,890 --> 00:14:14,660

that given child so the use of

354

00:14:12,920 --> 00:14:18,230

nationally normed word identification

355

00:14:14,660 --> 00:14:20,149

tests from the major batteries in my

356

00:14:18,230 --> 00:14:22,700

estimation is now our gold standard for

357

00:14:20,149 --> 00:14:24,620

determining if something is effective

358

00:14:22,700 --> 00:14:26,870

and all the other approaches are

359

00:14:24,620 --> 00:14:28,190

inherently incapable of determining

360

00:14:26,870 --> 00:14:32,240

effectiveness for the reasons that I

361

00:14:28,190 --> 00:14:34,160

covered this means that when a program

362

00:14:32,240 --> 00:14:37,430

has been developed and is being marketed

363

00:14:34,160 --> 00:14:40,880

we need to ask them show us what kind of

364

00:14:37,430 --> 00:14:43,339

standard score point gains children get

365

00:14:40,880 --> 00:14:45,200

when they use this program relative to

366

00:14:43,339 --> 00:14:46,850

some sort of control group or not

367

00:14:45,200 --> 00:14:49,279

getting that program it's not enough to

368

00:14:46,850 --> 00:14:51,890

just show us statistical significance

369

00:14:49,279 --> 00:14:53,600

between groups or effect sizes or raw

370

00:14:51,890 --> 00:14:55,970

score improvements I need to mention

371

00:14:53,600 --> 00:14:59,959

that nearly all the reviews of

372

00:14:55,970 --> 00:15:03,649

intervention research up until 2015 and

373

00:14:59,959 --> 00:15:05,329

even since 2015 have used effect size to

374

00:15:03,649 --> 00:15:07,810

try to determine effectiveness of

375

00:15:05,329 --> 00:15:11,329

different types of interventions

376

00:15:07,810 --> 00:15:13,070

however some reviewers had said hey we

377

00:15:11,329 --> 00:15:14,800

might need to look at standard score

378

00:15:13,070 --> 00:15:17,080

point gains but nobody did that I

379

00:15:14,800 --> 00:15:18,580

decided to do that and I did

380

00:15:17,080 --> 00:15:22,090

a review of the literature that came out

381

00:15:18,580 --> 00:15:24,460

in 2015 in the context of a book that I

382

00:15:22,090 --> 00:15:27,220

wrote and I had some pretty interesting

383

00:15:24,460 --> 00:15:32,680

findings and these will be discussed in

384

00:15:27,220 --> 00:15:34,030

future sessions within this module there

385

00:15:32,680 --> 00:15:36,040

are five ways of estimating

386

00:15:34,030 --> 00:15:37,960

effectiveness of interventions you have

387

00:15:36,040 --> 00:15:40,210

informal assessments raw score gain

388

00:15:37,960 --> 00:15:41,770

statistical significant effect sizes and

389

00:15:40,210 --> 00:15:44,590

standard score point gains from

390

00:15:41,770 --> 00:15:48,130

nationally normed tests the first four

391

00:15:44,590 --> 00:15:51,340

of those are not capable of telling you

392

00:15:48,130 --> 00:15:53,020

if a program is effective and only

393

00:15:51,340 --> 00:15:54,970

standard score point gains on national

394

00:15:53,020 --> 00:16:01,780

norm tasks can let us know if readers

395

00:15:54,970 --> 00:16:04,960

are catching up with their peers so how

396

00:16:01,780 --> 00:16:07,270

have you gauged reading improvements and

397

00:16:04,960 --> 00:16:15,610

how might this change as a result of

398

00:16:07,270 --> 00:16:16,570

what you learned in this session up next

399

00:16:15,610 --> 00:16:18,190

we're going to look at popular

400

00:16:16,570 --> 00:16:20,730

interventions that have minimal to

401

00:16:18,190 --> 00:16:20,730

modest results