

Pseudoscience in Education

With

Adrienne Hill - Kelly Burke - Michelle Bijkersma

As heard on The Skeptic Zone Podcast



Adrienne Hill



Kelly Burke



Michelle Bijkersma

Right Brian, Left Brain Myth

1
00:00:11,690 --> 00:00:08,350
[Music]

2
00:00:13,650 --> 00:00:11,700
you can count on Adrian

3
00:00:17,510 --> 00:00:13,660
with Adrian Hill

4
00:00:19,609 --> 00:00:17,520
[Music]

5
00:00:21,529 --> 00:00:19,619
hello everyone this is Adrian Hill from

6
00:00:24,050 --> 00:00:21,539
Calgary Canada here to talk about

7
00:00:26,990 --> 00:00:24,060
pseudoscience in education this

8
00:00:28,970 --> 00:00:27,000
conversation was sparked by a Globe and

9
00:00:31,429 --> 00:00:28,980
Mail article and the Global Mail is a

10
00:00:33,229 --> 00:00:31,439
national Canadian newspaper about how

11
00:00:35,150 --> 00:00:33,239
the belief in the disproven learning

12
00:00:37,370 --> 00:00:35,160
styles is still prevalent within the

13
00:00:40,250 --> 00:00:37,380

Canadian education system the article

14

00:00:43,069 --> 00:00:40,260

which was written by Michael zagstra was

15

00:00:44,930 --> 00:00:43,079

titled quote is the theory of unique

16

00:00:47,630 --> 00:00:44,940

learning styles dragging down our

17

00:00:49,670 --> 00:00:47,640

education system end quote

18

00:00:51,770 --> 00:00:49,680

well what do I mean by learning styles

19

00:00:54,170 --> 00:00:51,780

well there are several different

20

00:00:56,750 --> 00:00:54,180

theories out there but the one I am most

21

00:00:59,750 --> 00:00:56,760

familiar with is called the vark model

22

00:01:03,229 --> 00:00:59,760

which encompasses V for visual learning

23

00:01:06,109 --> 00:01:03,239

a for oral learning R for reading and

24

00:01:08,210 --> 00:01:06,119

writing learning and K for kinesthetic

25

00:01:11,270 --> 00:01:08,220

learning Han Spark

26
00:01:13,550 --> 00:01:11,280
from Wikipedia quote students can use

27
00:01:15,950 --> 00:01:13,560
the model and inventory to identify

28
00:01:18,530 --> 00:01:15,960
their preferred learning style and it is

29
00:01:20,630 --> 00:01:18,540
claimed improve their learning by

30
00:01:22,490 --> 00:01:20,640
focusing on the mode that benefits them

31
00:01:25,550 --> 00:01:22,500
the most end quote

32
00:01:27,530 --> 00:01:25,560
for example a visual learner will learn

33
00:01:29,990 --> 00:01:27,540
best if the material is presented via

34
00:01:31,910 --> 00:01:30,000
graphs charts pictures Etc and a

35
00:01:33,890 --> 00:01:31,920
kinesthetic learner learns best with

36
00:01:35,690 --> 00:01:33,900
Hands-On experiences that include

37
00:01:38,510 --> 00:01:35,700
touching and doing things like lab

38
00:01:40,730 --> 00:01:38,520

experiments or art projects

39

00:01:42,590 --> 00:01:40,740

I found that this belief was very

40

00:01:44,990 --> 00:01:42,600

prevalent with both teachers and

41

00:01:47,569 --> 00:01:45,000

students during my 30 plus years of

42

00:01:49,550 --> 00:01:47,579

teaching in two provinces

43

00:01:52,190 --> 00:01:49,560

I was curious to find out if other

44

00:01:54,530 --> 00:01:52,200

teachers have had similar experiences so

45

00:01:57,230 --> 00:01:54,540

I called my teacher friends Kelly Burke

46

00:02:00,289 --> 00:01:57,240

and the skeptical Fairy Godmother from

47

00:02:03,770 --> 00:02:00,299

the internet aka the tooth fairy

48

00:02:05,450 --> 00:02:03,780

yes besides her two fairy roles she is a

49

00:02:07,370 --> 00:02:05,460

teacher as well

50

00:02:09,650 --> 00:02:07,380

besides learning styles our discussion

51
00:02:12,290 --> 00:02:09,660
includes right brain left brain homework

52
00:02:15,050 --> 00:02:12,300
myths high impact teaching strategies or

53
00:02:16,550 --> 00:02:15,060
hits and growth mindset versus fixed

54
00:02:18,890 --> 00:02:16,560
mindset

55
00:02:24,370 --> 00:02:18,900
something I was not familiar with we

56
00:02:30,890 --> 00:02:28,430
[Music]

57
00:02:34,250 --> 00:02:30,900
hello everyone welcome back to an

58
00:02:35,809 --> 00:02:34,260
episode of counting on Adrian and today

59
00:02:37,670 --> 00:02:35,819
I'm tackling the subject of

60
00:02:39,830 --> 00:02:37,680
pseudoscience and education something

61
00:02:41,869 --> 00:02:39,840
close to my heart since I was a high

62
00:02:44,089 --> 00:02:41,879
school math teacher for over 30 years

63
00:02:47,210 --> 00:02:44,099

and I have two guests with me I'm so

64

00:02:50,330 --> 00:02:47,220

excited I have Kelly Burke she is from

65

00:02:52,250 --> 00:02:50,340

Delaware in the USA and we have Michelle

66

00:02:54,589 --> 00:02:52,260

bickersma hopefully I said that right

67

00:02:56,270 --> 00:02:54,599

Michelle and she is from Melbourne

68

00:02:58,070 --> 00:02:56,280

Australia we have an international

69

00:03:00,650 --> 00:02:58,080

perspective we're going to share today

70

00:03:04,130 --> 00:03:00,660

so welcome you guys

71

00:03:05,449 --> 00:03:04,140

thanks Adrian thanks for having me so

72

00:03:07,610 --> 00:03:05,459

Kelly can you tell me a little bit about

73

00:03:11,690 --> 00:03:07,620

your your educational experience as a

74

00:03:13,910 --> 00:03:11,700

teacher yes so I teach students with

75

00:03:16,250 --> 00:03:13,920

severe and multiple disabilities I'm in

76

00:03:19,130 --> 00:03:16,260

a self-contained school I was the music

77

00:03:21,949 --> 00:03:19,140

teacher at the school for five years and

78

00:03:23,990 --> 00:03:21,959

now I teach in a high school classroom

79

00:03:27,350 --> 00:03:24,000

and Michelle can you tell us about your

80

00:03:29,809 --> 00:03:27,360

experience too I started teaching in

81

00:03:33,350 --> 00:03:29,819

high school here that is year seven to

82

00:03:35,330 --> 00:03:33,360

twelve but in the mid 90s and I've been

83

00:03:38,089 --> 00:03:35,340

in and out a little bit but I'm still

84

00:03:41,390 --> 00:03:38,099

there at my original school and I

85

00:03:44,210 --> 00:03:41,400

primarily teach Japanese but I also go

86

00:03:47,570 --> 00:03:44,220

in and out of the humanities as the need

87

00:03:50,089 --> 00:03:47,580

arises awesome so we have a variety of

88

00:03:52,910 --> 00:03:50,099

backgrounds math with me and special ed

89

00:03:54,949 --> 00:03:52,920

and music with Kelly and Japanese and

90

00:03:57,530 --> 00:03:54,959

the humanities the first thing I wanted

91

00:04:01,369 --> 00:03:57,540

to kind of talk about was the right

92

00:04:03,589 --> 00:04:01,379

brain left brain myth and the reason I

93

00:04:05,330 --> 00:04:03,599

wanted to start there is when I first

94

00:04:07,430 --> 00:04:05,340

started teaching as a brand new first

95

00:04:09,289 --> 00:04:07,440

year teacher at a province-wide

96

00:04:12,470 --> 00:04:09,299

professional development we all went

97

00:04:16,490 --> 00:04:12,480

into Vancouver in British Columbia and

98

00:04:18,050 --> 00:04:16,500

we had this amazing speaker and he was I

99

00:04:21,349 --> 00:04:18,060

believe a keynote speaker but you know

100

00:04:23,990 --> 00:04:21,359

memory can be wrong and he talked about

101
00:04:27,230 --> 00:04:24,000
brain and left brain with regards to

102
00:04:29,450 --> 00:04:27,240
education and I was absolutely sucked in

103
00:04:32,629 --> 00:04:29,460
he was charismatic he was he was

104
00:04:34,550 --> 00:04:32,639
convincing and that then later on when I

105
00:04:35,570 --> 00:04:34,560
started realizing that some things

106
00:04:38,150 --> 00:04:35,580
weren't

107
00:04:40,129 --> 00:04:38,160
quite what they seem I ran into an

108
00:04:42,950 --> 00:04:40,139
article actually in in science-based

109
00:04:45,950 --> 00:04:42,960
medicine that talked about the myth of

110
00:04:48,590 --> 00:04:45,960
right brain left brain and have you guys

111
00:04:50,090 --> 00:04:48,600
experienced that in your countries with

112
00:04:52,850 --> 00:04:50,100
education

113
00:04:56,270 --> 00:04:52,860

I personally haven't come across it in

114

00:04:58,249 --> 00:04:56,280

education I was never taught about that

115

00:05:00,650 --> 00:04:58,259

or anything like that as far as I

116

00:05:02,870 --> 00:05:00,660

remember it hasn't been a thing more

117

00:05:05,930 --> 00:05:02,880

it's something I picked up from popular

118

00:05:08,749 --> 00:05:05,940

culture and just hearing other adults

119

00:05:11,270 --> 00:05:08,759

talk about it but I don't remember it in

120

00:05:13,010 --> 00:05:11,280

the school setting interesting because

121

00:05:15,409 --> 00:05:13,020

it was definitely in our school setting

122

00:05:17,390 --> 00:05:15,419

obviously they're promoting it out of

123

00:05:19,370 --> 00:05:17,400

professional development which when I

124

00:05:21,950 --> 00:05:19,380

look back at what's the harm well I

125

00:05:25,610 --> 00:05:21,960

guess a waste of time is one thing but

126

00:05:27,230 --> 00:05:25,620

it is time consuming and there was

127

00:05:30,950 --> 00:05:27,240

probably a cost associated with it I

128

00:05:32,090 --> 00:05:30,960

would assume What About You Kelly and I

129

00:05:33,890 --> 00:05:32,100

was going to say the same thing as

130

00:05:37,129 --> 00:05:33,900

Michelle I haven't really encountered it

131

00:05:39,890 --> 00:05:37,139

as a teacher I encounter it you know in

132

00:05:43,129 --> 00:05:39,900

pop culture and like with friends but I

133

00:05:46,129 --> 00:05:43,139

think it can be harmful in that if it's

134

00:05:48,409 --> 00:05:46,139

shared with students it can make

135

00:05:50,270 --> 00:05:48,419

students put themselves into a box if

136

00:05:53,090 --> 00:05:50,280

you have a student who's thinking oh I'm

137

00:05:55,370 --> 00:05:53,100

really left brains so I'm not good at I

138

00:05:57,350 --> 00:05:55,380

forget which is which I forget to look

139

00:05:59,330 --> 00:05:57,360

good at math or Arts anyway but they say

140

00:06:01,790 --> 00:05:59,340

like I'm left brain so I'm not good at

141

00:06:03,950 --> 00:06:01,800

this and I am good at this correct it

142

00:06:07,010 --> 00:06:03,960

sets up expectations for themselves

143

00:06:09,110 --> 00:06:07,020

which they will then be more likely to

144

00:06:11,090 --> 00:06:09,120

fulfill yeah exactly so there's another

145

00:06:13,070 --> 00:06:11,100

harm that could be potential is putting

146

00:06:15,110 --> 00:06:13,080

yourself into a box and I think that

147

00:06:17,570 --> 00:06:15,120

leads nicely into learning styles

148

00:06:19,850 --> 00:06:17,580

because I think they're kind of linked

149

00:06:23,150 --> 00:06:19,860

in that respect right brain left brain

150

00:06:25,430 --> 00:06:23,160

I'm a visual learner kinesthetic learner

151

00:06:28,129 --> 00:06:25,440

Etc and I've certainly encountered that

152

00:06:30,770 --> 00:06:28,139

a lot it's very ingrained in the system

153

00:06:32,809 --> 00:06:30,780

them in Canada I'm in Alberta now heard

154

00:06:35,150 --> 00:06:32,819

it all the time we had professional

155

00:06:36,890 --> 00:06:35,160

development about it I've had students

156

00:06:39,230 --> 00:06:36,900

come up to me and say I can't do math

157

00:06:41,029 --> 00:06:39,240

because I'm a visual learner so there's

158

00:06:43,969 --> 00:06:41,039

that harm with the box that they put

159

00:06:46,610 --> 00:06:43,979

themselves into when they actually can

160

00:06:49,909 --> 00:06:46,620

do math you know with if they but also

161

00:06:51,770 --> 00:06:49,919

math is superficial I I heard that a lot

162

00:06:54,290 --> 00:06:51,780

I'm a visual learner therefore I can't

163

00:06:57,409 --> 00:06:54,300

do math and I think as a special

164

00:07:00,529 --> 00:06:57,419

education teacher it gets to be a little

165

00:07:03,950 --> 00:07:00,539

murky because I do have students who

166

00:07:05,330 --> 00:07:03,960

specifically need visuals with whatever

167

00:07:07,550 --> 00:07:05,340

we're working on or things like that

168

00:07:09,529 --> 00:07:07,560

because of a specific disability and

169

00:07:12,110 --> 00:07:09,539

that's very different from a

170

00:07:13,969 --> 00:07:12,120

neurotypical learner putting themselves

171

00:07:15,770 --> 00:07:13,979

in a box like I know some of the the

172

00:07:18,230 --> 00:07:15,780

research on it that kind of debunked

173

00:07:19,969 --> 00:07:18,240

that looked at what type of learner

174

00:07:21,830 --> 00:07:19,979

people thought they were and then how

175

00:07:23,749 --> 00:07:21,840

they performed on certain tasks and it

176
00:07:26,150 --> 00:07:23,759
showed that it didn't quite match up but

177
00:07:28,070 --> 00:07:26,160
as a special ed teacher I will have a

178
00:07:29,629 --> 00:07:28,080
student who's blind so I need to do all

179
00:07:32,570 --> 00:07:29,639
auditory things they're a student who's

180
00:07:35,270 --> 00:07:32,580
deaf or things like that and we need to

181
00:07:37,430 --> 00:07:35,280
differentiate but that's not the same

182
00:07:40,550 --> 00:07:37,440
thing as labeling everybody with a

183
00:07:41,990 --> 00:07:40,560
learning style exactly and Michelle what

184
00:07:45,469 --> 00:07:42,000
have your experiences been with that one

185
00:07:48,050 --> 00:07:45,479
uh again I haven't seen it a lot in the

186
00:07:51,110 --> 00:07:48,060
high school setting but I did see it

187
00:07:53,450 --> 00:07:51,120
quite a lot in my own Children's Primary

188
00:07:55,490 --> 00:07:53,460

School setting just when I spent time in

189

00:07:58,490 --> 00:07:55,500

the classroom there as the the mum who

190

00:08:00,830 --> 00:07:58,500

helps with reading but yes again I know

191

00:08:02,990 --> 00:08:00,840

that Secondary School teachers believe

192

00:08:06,950 --> 00:08:03,000

it and I have arguments with people

193

00:08:09,290 --> 00:08:06,960

about it basically lay people who are

194

00:08:13,370 --> 00:08:09,300

not teachers tend to believe it because

195

00:08:15,710 --> 00:08:13,380

everybody knows strategies that work for

196

00:08:17,629 --> 00:08:15,720

them that they rely on when they're

197

00:08:21,529 --> 00:08:17,639

trying to learn something and people

198

00:08:24,710 --> 00:08:21,539

equate that with a learning style so you

199

00:08:26,330 --> 00:08:24,720

know my comeback is always yes because

200

00:08:30,409 --> 00:08:26,340

I'm sure you're a visual learner

201
00:08:34,089 --> 00:08:30,419
everybody is and it's because there are

202
00:08:38,269 --> 00:08:34,099
strategies rather than learning styles

203
00:08:40,909 --> 00:08:38,279
so for example I'm currently teaching

204
00:08:43,370 --> 00:08:40,919
Civics and citizenships for the first

205
00:08:45,769 --> 00:08:43,380
time so I'm having to learn more about

206
00:08:48,889 --> 00:08:45,779
the general things I know as an adult

207
00:08:51,650 --> 00:08:48,899
such as preferential and proportional

208
00:08:53,269 --> 00:08:51,660
voting that I know how to do and I have

209
00:08:56,150 --> 00:08:53,279
a general understanding of how it works

210
00:08:59,210 --> 00:08:56,160
but now that I have to explain it I have

211
00:09:01,610 --> 00:08:59,220
to understand it in better detail so

212
00:09:04,790 --> 00:09:01,620
that I can simplify it and so that I can

213
00:09:07,430 --> 00:09:04,800

answer questions on the spot gotta learn

214

00:09:10,670 --> 00:09:07,440

it and then teach it so it's interesting

215

00:09:13,550 --> 00:09:10,680

in that way that I'm noticing that there

216

00:09:16,370 --> 00:09:13,560

are certain strategies that I need to

217

00:09:18,530 --> 00:09:16,380

use to learn it and if I believed in

218

00:09:21,110 --> 00:09:18,540

learning styles I should be able to

219

00:09:24,350 --> 00:09:21,120

learn about proportional and

220

00:09:27,290 --> 00:09:24,360

preferential reading by reading the

221

00:09:29,750 --> 00:09:27,300

textbook page and I attempted to do that

222

00:09:33,889 --> 00:09:29,760

last week and I thought I'm going home

223

00:09:37,130 --> 00:09:33,899

to cry now because it was all just a big

224

00:09:39,530 --> 00:09:37,140

wall of text and I thought I actually

225

00:09:41,630 --> 00:09:39,540

understand in principle what this means

226

00:09:44,690 --> 00:09:41,640

but this is just saying blah blah blah

227

00:09:45,949 --> 00:09:44,700

jargon blah blah and I thought okay I'll

228

00:09:48,470 --> 00:09:45,959

try from

229

00:09:52,370 --> 00:09:48,480

the mathematical point of view but it

230

00:09:56,030 --> 00:09:52,380

became so specific with the equations

231

00:09:58,610 --> 00:09:56,040

that I thought oh no I'm dumb I better

232

00:09:59,990 --> 00:09:58,620

resign and then I thought well that

233

00:10:02,410 --> 00:10:00,000

would be terrible there's a teacher

234

00:10:06,290 --> 00:10:02,420

shortage I better give myself some video

235

00:10:08,990 --> 00:10:06,300

tutorials because clearly I would have

236

00:10:11,030 --> 00:10:09,000

thought I was a language learning style

237

00:10:13,430 --> 00:10:11,040

person or a mathematical learning style

238

00:10:16,370 --> 00:10:13,440

both of these are failing me and I'm

239

00:10:19,850 --> 00:10:16,380

going to video tutorials and be a visual

240

00:10:22,430 --> 00:10:19,860

learner but they were beautiful and

241

00:10:26,269 --> 00:10:22,440

that's because of the visual element of

242

00:10:29,570 --> 00:10:26,279

it and the auditory element of it and

243

00:10:32,030 --> 00:10:29,580

yet that it just actually goes to show

244

00:10:34,490 --> 00:10:32,040

that I don't have one of those four

245

00:10:37,730 --> 00:10:34,500

learning styles language mathematical

246

00:10:40,970 --> 00:10:37,740

visual or auditory basically that

247

00:10:44,509 --> 00:10:40,980

material was best presented in video

248

00:10:47,389 --> 00:10:44,519

form with animated graphs with someone

249

00:10:49,250 --> 00:10:47,399

explaining it to me and some text to

250

00:10:51,230 --> 00:10:49,260

read and then when I went back and read

251
00:10:52,670 --> 00:10:51,240
the textbook I could understand it when

252
00:10:55,970 --> 00:10:52,680
I went back and looked at the equations

253
00:10:59,930 --> 00:10:55,980
I could understand it and so it was the

254
00:11:02,410 --> 00:10:59,940
method of delivery is much clearer in

255
00:11:06,230 --> 00:11:02,420
some forms than others it has actually

256
00:11:08,930 --> 00:11:06,240
very little to do with the learner you

257
00:11:13,850 --> 00:11:08,940
don't have a style in which you learn

258
00:11:15,710 --> 00:11:13,860
better the material is better taught in

259
00:11:18,110 --> 00:11:15,720
some ways than others and there was a

260
00:11:20,050 --> 00:11:18,120
lot of reinforcement going on like the I

261
00:11:25,250 --> 00:11:20,060
was just saying the video tutorial

262
00:11:27,470 --> 00:11:25,260
includes visuals animation auditory and

263
00:11:29,030 --> 00:11:27,480

it's supported by text and it had the

264

00:11:32,389 --> 00:11:29,040

maths in it so by the time you put

265

00:11:35,750 --> 00:11:32,399

everything in together it became very

266

00:11:38,389 --> 00:11:35,760

comprehensible and so I have worked out

267

00:11:40,910 --> 00:11:38,399

exactly how I'm going to teach this to

268

00:11:43,069 --> 00:11:40,920

my students and I spent a day putting

269

00:11:46,430 --> 00:11:43,079

together an interactive PowerPoint that

270

00:11:49,310 --> 00:11:46,440

has key terms and definitions and

271

00:11:52,190 --> 00:11:49,320

digital flash cards to support that it

272

00:11:55,250 --> 00:11:52,200

has some of the simple equations and

273

00:11:57,710 --> 00:11:55,260

graphs to make sense of it it has the

274

00:12:00,290 --> 00:11:57,720

beautiful two minute long videos that

275

00:12:03,470 --> 00:12:00,300

just cut to the Chase and have excellent

276

00:12:07,130 --> 00:12:03,480

graphics and commentary that's in it as

277

00:12:08,690 --> 00:12:07,140

well some interactive boating ballots

278

00:12:10,490 --> 00:12:08,700

where you could actually fill in the

279

00:12:12,949 --> 00:12:10,500

numbers and vote for your candidate so

280

00:12:14,870 --> 00:12:12,959

there's the Kenneth setting and then at

281

00:12:17,210 --> 00:12:14,880

the end there's some games because I

282

00:12:19,370 --> 00:12:17,220

like to gamify my classroom and that

283

00:12:22,009 --> 00:12:19,380

which is fun all another thing in itself

284

00:12:24,590 --> 00:12:22,019

some people think that it's not real

285

00:12:26,810 --> 00:12:24,600

education when there is actually

286

00:12:29,509 --> 00:12:26,820

evidence to say that there is so that's

287

00:12:32,329 --> 00:12:29,519

the touches on other myths but this is

288

00:12:34,670 --> 00:12:32,339

the way to teach things you are not

289

00:12:37,910 --> 00:12:34,680

appealing to different Learners you are

290

00:12:43,550 --> 00:12:37,920

using different strategies that support

291

00:12:45,769 --> 00:12:43,560

each other to best present material and

292

00:12:48,470 --> 00:12:45,779

it won't be that one thing particularly

293

00:12:51,050 --> 00:12:48,480

the nights necessarily but by the time

294

00:12:52,970 --> 00:12:51,060

it all comes together the hope is that

295

00:12:54,769 --> 00:12:52,980

students will understand it and this is

296

00:12:57,590 --> 00:12:54,779

again what I do with language all the

297

00:13:00,710 --> 00:12:57,600

time I never present anything in just

298

00:13:02,389 --> 00:13:00,720

one way and again it's not because I

299

00:13:06,370 --> 00:13:02,399

want to make different learning styles

300

00:13:10,370 --> 00:13:06,380

it's because the combined strategies

301
00:13:12,050 --> 00:13:10,380
support each other and work together and

302
00:13:14,030 --> 00:13:12,060
emphasize different things and then the

303
00:13:15,769 --> 00:13:14,040
whole thing should theoretically fall

304
00:13:18,290 --> 00:13:15,779
into place

305
00:13:21,650 --> 00:13:18,300
yeah exactly and I think the big point

306
00:13:24,170 --> 00:13:21,660
there that is so important is that it is

307
00:13:27,889 --> 00:13:24,180
the material that dictates how you teach

308
00:13:30,829 --> 00:13:27,899
it effectively not the student in how

309
00:13:33,530 --> 00:13:30,839
they learn exactly it's it's backwards

310
00:13:35,389 --> 00:13:33,540
exactly and uh Kelly do you have

311
00:13:39,350 --> 00:13:35,399
anything to add to that

312
00:13:42,050 --> 00:13:39,360
I was just thinking about like teacher

313
00:13:46,910 --> 00:13:42,060

preparation programs and I'm curious

314

00:13:49,790 --> 00:13:46,920

about your experiences and how much your

315

00:13:52,009 --> 00:13:49,800

education focused on

316

00:13:54,050 --> 00:13:52,019

making you an expert in your content

317

00:13:56,629 --> 00:13:54,060

area versus making you an expert on

318

00:13:59,210 --> 00:13:56,639

teaching because I think with a lot of

319

00:14:03,410 --> 00:13:59,220

programs there's so much to cram into

320

00:14:05,930 --> 00:14:03,420

four years of college to prepare you and

321

00:14:10,670 --> 00:14:05,940

I so I went to school for music

322

00:14:14,210 --> 00:14:10,680

education and so I had to learn how to

323

00:14:16,730 --> 00:14:14,220

teach music for kindergarten through

324

00:14:20,750 --> 00:14:16,740

12th grade bands Orchestra chorus

325

00:14:24,410 --> 00:14:20,760

General music so I spent so many hours

326

00:14:25,730 --> 00:14:24,420

of classes learning how to play all of

327

00:14:28,190 --> 00:14:25,740

the band instruments and orchestra

328

00:14:31,370 --> 00:14:28,200

instruments and learning so many

329

00:14:34,370 --> 00:14:31,380

different aspects of it that there's not

330

00:14:36,470 --> 00:14:34,380

always a ton of time for evidence-based

331

00:14:37,850 --> 00:14:36,480

teaching instruction

332

00:14:39,829 --> 00:14:37,860

um and I think I got a lot of it I think

333

00:14:41,990 --> 00:14:39,839

I was really lucky I had a professor who

334

00:14:44,870 --> 00:14:42,000

was really active in research in music

335

00:14:47,750 --> 00:14:44,880

education so I did get a lot of

336

00:14:49,430 --> 00:14:47,760

instruction in best practices and

337

00:14:51,889 --> 00:14:49,440

evidence-based strategies at the

338

00:14:54,110 --> 00:14:51,899

underground red level but now I'm not

339

00:14:57,230 --> 00:14:54,120

teaching music and that's a whole other

340

00:14:59,389 --> 00:14:57,240

story but I just wondered what kind of

341

00:15:02,090 --> 00:14:59,399

preparation you guys got in terms of

342

00:15:03,829 --> 00:15:02,100

teaching strategies versus your content

343

00:15:06,530 --> 00:15:03,839

areas yeah that's a good great question

344

00:15:10,189 --> 00:15:06,540

I can speak to that I did a four-year

345

00:15:13,129 --> 00:15:10,199

math major so I really just had one year

346

00:15:15,350 --> 00:15:13,139

of Education in my fifth year and I did

347

00:15:17,870 --> 00:15:15,360

transfer in in third year so I had to do

348

00:15:19,730 --> 00:15:17,880

a practicum at the end of every year did

349

00:15:21,590 --> 00:15:19,740

I learn anything did I have courses no

350

00:15:24,350 --> 00:15:21,600

we just got kind of thrown in into

351
00:15:26,870 --> 00:15:24,360
teaching and we learned from teachers

352
00:15:30,290 --> 00:15:26,880
who had experience until my fifth year

353
00:15:32,930 --> 00:15:30,300
when we did have some how to teach

354
00:15:36,170 --> 00:15:32,940
courses for sure but it was mostly

355
00:15:38,389 --> 00:15:36,180
around discipline it was not around

356
00:15:42,290 --> 00:15:38,399
learning styles I didn't get the

357
00:15:45,650 --> 00:15:42,300
brain left brain I didn't get any of

358
00:15:48,170 --> 00:15:45,660
that until I was a full-time teacher and

359
00:15:51,710 --> 00:15:48,180
we went to professional developments

360
00:15:54,170 --> 00:15:51,720
I think a lot of Education

361
00:15:57,350 --> 00:15:54,180
comes from learning from experienced

362
00:15:59,210 --> 00:15:57,360
teachers like a lot of my like a lot of

363
00:16:01,069 --> 00:15:59,220

how I learned how to teach was having

364

00:16:04,310 --> 00:16:01,079

practicum placements and things like

365

00:16:06,949 --> 00:16:04,320

that and so you get these myths passed

366

00:16:09,350 --> 00:16:06,959

down without anything to kind of stop

367

00:16:10,550 --> 00:16:09,360

them exactly so I think that's kind of a

368

00:16:13,430 --> 00:16:10,560

lot of the reason that that's

369

00:16:15,889 --> 00:16:13,440

perpetuated in education but I think

370

00:16:18,230 --> 00:16:15,899

also as Adrian was saying some of the

371

00:16:21,829 --> 00:16:18,240

professional development you get as a

372

00:16:24,710 --> 00:16:21,839

teacher is just from Consultants now

373

00:16:27,650 --> 00:16:24,720

they're peddling their own thing and

374

00:16:29,389 --> 00:16:27,660

either your curriculum coordinator at

375

00:16:31,250 --> 00:16:29,399

your school loves what they're peddling

376

00:16:34,129 --> 00:16:31,260

with because due to their own personal

377

00:16:37,129 --> 00:16:34,139

preference or they don't so you get some

378

00:16:39,410 --> 00:16:37,139

you can get really anybody come and

379

00:16:41,629 --> 00:16:39,420

speak to you in your professional

380

00:16:44,389 --> 00:16:41,639

development that is part of the problem

381

00:16:46,430 --> 00:16:44,399

it's their personal Consultants with

382

00:16:48,949 --> 00:16:46,440

their own business pushing their own

383

00:16:50,509 --> 00:16:48,959

agenda some of the time it's you know

384

00:16:53,449 --> 00:16:50,519

some of the time not it depends where

385

00:16:55,310 --> 00:16:53,459

they come from but there's no guarantees

386

00:16:56,590 --> 00:16:55,320

that you're getting the right

387

00:16:59,930 --> 00:16:56,600

information

388

00:17:03,769 --> 00:16:59,940

my teaching experience was you know I

389

00:17:05,750 --> 00:17:03,779

did my three years Bachelor of Arts and

390

00:17:10,490 --> 00:17:05,760

then I did my one year of teaching and

391

00:17:12,350 --> 00:17:10,500

in Japanese the The Dilemma always is do

392

00:17:16,250 --> 00:17:12,360

you teach grammar or do you teach

393

00:17:19,730 --> 00:17:16,260

holistically and this I find is probably

394

00:17:22,069 --> 00:17:19,740

the most prevalent problem in education

395

00:17:25,189 --> 00:17:22,079

is that there's all these false

396

00:17:28,130 --> 00:17:25,199

dichotomies right too many things

397

00:17:30,770 --> 00:17:28,140

entered as a false dichotomy it has to

398

00:17:34,130 --> 00:17:30,780

be one or the other instead of it

399

00:17:37,310 --> 00:17:34,140

you know the mnemonics and uh phonetics

400

00:17:39,470 --> 00:17:37,320

sorry and sight reading debate is it

401
00:17:42,650 --> 00:17:39,480
should we be teaching phonetics should

402
00:17:46,970 --> 00:17:42,660
we be learning whole words on site well

403
00:17:49,610 --> 00:17:46,980
yes yes both yes and Mathematics the

404
00:17:51,049 --> 00:17:49,620
false dichotomy all the time or in

405
00:17:52,610 --> 00:17:51,059
thinking about coming to talk to you

406
00:17:54,650 --> 00:17:52,620
guys about using evidence-based

407
00:17:57,890 --> 00:17:54,660
practices and teaching I was thinking

408
00:18:00,230 --> 00:17:57,900
about why we don't see as much of

409
00:18:03,130 --> 00:18:00,240
evidence-based practices in teaching and

410
00:18:06,650 --> 00:18:03,140
I'm curious as to your experiences

411
00:18:10,430 --> 00:18:06,660
outside of the US because I think a lot

412
00:18:13,490 --> 00:18:10,440
of it has to do with time on yes at

413
00:18:16,909 --> 00:18:13,500

least on my end because teachers barely

414

00:18:19,430 --> 00:18:16,919

have the time to get their job done and

415

00:18:21,169 --> 00:18:19,440

so to keep up with the latest research

416

00:18:24,830 --> 00:18:21,179

and things like that it's just

417

00:18:28,190 --> 00:18:24,840

impossible like I know for us I have 45

418

00:18:30,230 --> 00:18:28,200

minutes of planning time a day and half

419

00:18:32,930 --> 00:18:30,240

of that is eaten up by meetings and

420

00:18:34,909 --> 00:18:32,940

things like that that I end up taking a

421

00:18:36,590 --> 00:18:34,919

lot of my work home as I know most

422

00:18:38,810 --> 00:18:36,600

teachers in the US do and I'm just

423

00:18:41,750 --> 00:18:38,820

curious as to your experiences with that

424

00:18:44,630 --> 00:18:41,760

I think for me definitely it was a huge

425

00:18:45,770 --> 00:18:44,640

Factor time is so precious and you're

426

00:18:47,570 --> 00:18:45,780

barely able when you're working

427

00:18:49,549 --> 00:18:47,580

full-time especially

428

00:18:51,770 --> 00:18:49,559

you're barely able to keep your head

429

00:18:53,630 --> 00:18:51,780

above water just keeping up with

430

00:18:56,150 --> 00:18:53,640

teaching the curriculum and teaching

431

00:18:58,789 --> 00:18:56,160

what you need to do and that was one of

432

00:19:01,390 --> 00:18:58,799

the things that I was very grateful for

433

00:19:04,669 --> 00:19:01,400

when I went to part-time

434

00:19:07,310 --> 00:19:04,679

is I've now had experts who were

435

00:19:10,510 --> 00:19:07,320

neurologists psychiatrists Etc that I

436

00:19:13,850 --> 00:19:10,520

could work with with regards to my kids

437

00:19:16,930 --> 00:19:13,860

and I also became an in-service provider

438

00:19:20,330 --> 00:19:16,940

so I would go into schools and teach the

439

00:19:22,610 --> 00:19:20,340

evidence-based Practice coming down from

440

00:19:25,789 --> 00:19:22,620

neurologists psychiatrists Etc and the

441

00:19:28,669 --> 00:19:25,799

studies that they had done but getting

442

00:19:30,350 --> 00:19:28,679

into schools is really really hard so we

443

00:19:32,870 --> 00:19:30,360

have this amazing program through the

444

00:19:34,789 --> 00:19:32,880

Toretto CD Alberta Network which we have

445

00:19:37,490 --> 00:19:34,799

a free program we will go into schools

446

00:19:40,070 --> 00:19:37,500

and teach teachers time is such a huge

447

00:19:41,690 --> 00:19:40,080

issue we can't get into schools so

448

00:19:42,950 --> 00:19:41,700

that's a big disconnect and I think

449

00:19:46,250 --> 00:19:42,960

that's something that needs to change

450

00:19:48,169 --> 00:19:46,260

and then even if teachers even if a

451
00:19:50,450 --> 00:19:48,179
school manages to carve out the time for

452
00:19:52,669 --> 00:19:50,460
a great program like that for teachers

453
00:19:54,590 --> 00:19:52,679
to implement it that means redoing all

454
00:19:56,690 --> 00:19:54,600
of their plans and that requires a lot

455
00:19:58,010 --> 00:19:56,700
of time so exactly even if you're

456
00:20:00,110 --> 00:19:58,020
getting the evidence-based practices

457
00:20:02,390 --> 00:20:00,120
there it takes a lot to actually get

458
00:20:04,610 --> 00:20:02,400
them into the classroom and also

459
00:20:07,669 --> 00:20:04,620
convincing the teachers that these

460
00:20:10,250 --> 00:20:07,679
practices that help kids with ADHD or

461
00:20:12,289 --> 00:20:10,260
OCD or you know obsessive-compulsive

462
00:20:14,090 --> 00:20:12,299
disorder or Tourette Syndrome or anxiety

463
00:20:16,310 --> 00:20:14,100

generalized anxiety

464

00:20:18,350 --> 00:20:16,320

all these these strategies actually help

465

00:20:21,110 --> 00:20:18,360

all students and get getting them to be

466

00:20:22,549 --> 00:20:21,120

convinced of that as well that if they

467

00:20:24,830 --> 00:20:22,559

do Implement these changes it makes

468

00:20:27,529 --> 00:20:24,840

their job easier but it does it takes

469

00:20:30,230 --> 00:20:27,539

time you have to invest time in in

470

00:20:32,210 --> 00:20:30,240

change and learning about it and it's

471

00:20:34,070 --> 00:20:32,220

not easy to do and it's easier to fall

472

00:20:35,510 --> 00:20:34,080

back into habits right that you've done

473

00:20:38,230 --> 00:20:35,520

yeah for years

474

00:20:41,390 --> 00:20:38,240

and it takes a lot of buy-in too which

475

00:20:43,010 --> 00:20:41,400

is easier said than done because you'll

476

00:20:45,890 --> 00:20:43,020

have I see a lot of confirmation bias

477

00:20:48,590 --> 00:20:45,900

with that really so you'll have this new

478

00:20:50,029 --> 00:20:48,600

and evidence-based practice you'll get

479

00:20:51,710 --> 00:20:50,039

this professional development on it

480

00:20:53,690 --> 00:20:51,720

teachers will try it for a couple of

481

00:20:56,210 --> 00:20:53,700

days say oh it doesn't work and then

482

00:20:58,430 --> 00:20:56,220

give up on it whereas if you really

483

00:21:01,190 --> 00:20:58,440

fully committed to it you'd be able to

484

00:21:04,610 --> 00:21:01,200

see those differences but in months it's

485

00:21:05,990 --> 00:21:04,620

not faithful yeah and it does and that's

486

00:21:07,730 --> 00:21:06,000

one of the things I've always said when

487

00:21:09,289 --> 00:21:07,740

I go into classrooms is this is

488

00:21:11,990 --> 00:21:09,299

something that's going to take months

489

00:21:14,090 --> 00:21:12,000

and maybe even years to see the evidence

490

00:21:15,710 --> 00:21:14,100

of and that's that's hard for teachers

491

00:21:18,230 --> 00:21:15,720

to buy into when they're dealing minute

492

00:21:22,370 --> 00:21:18,240

by minute hour by hour day by day right

493

00:21:26,570 --> 00:21:22,380

it's tough to get that buy-in as you say

494

00:21:29,810 --> 00:21:26,580

the lightest for us is what we call hits

495

00:21:33,230 --> 00:21:29,820

briefly explain what that is it's

496

00:21:35,750 --> 00:21:33,240

basically this is what's currently in

497

00:21:38,029 --> 00:21:35,760

Australian school so and I'm going to

498

00:21:40,909 --> 00:21:38,039

quote here hits have emerged from the

499

00:21:43,490 --> 00:21:40,919

findings of tens of thousands of studies

500

00:21:46,190 --> 00:21:43,500

on what has worked in classrooms across

501
00:21:49,970 --> 00:21:46,200
Australia and the world although hits

502
00:21:52,010 --> 00:21:49,980
are highly effective teaching strategies

503
00:21:54,529 --> 00:21:52,020
for increasing student learning they do

504
00:21:57,409 --> 00:21:54,539
not provide a complete framework but

505
00:22:01,130 --> 00:21:57,419
they do give us 10 kind of strategies

506
00:22:04,549 --> 00:22:01,140
and heat stands for high impact teaching

507
00:22:07,490 --> 00:22:04,559
strategies and interestingly they are

508
00:22:11,990 --> 00:22:07,500
mostly about direct instruction direct

509
00:22:16,850 --> 00:22:12,000
instruction is back explicit instruction

510
00:22:20,990 --> 00:22:16,860
is back inquiry learning largely gone

511
00:22:24,590 --> 00:22:21,000
down to a task rather than a model

512
00:22:27,909 --> 00:22:24,600
so it's yeah they basically teaches

513
00:22:33,049 --> 00:22:27,919

teaching and teacher-centered teaching

514

00:22:35,690 --> 00:22:33,059

seems to be backed by these studies and

515

00:22:37,850 --> 00:22:35,700

these meta-analysis and think it's you

516

00:22:40,430 --> 00:22:37,860

know it's all dressed up in edges speak

517

00:22:43,730 --> 00:22:40,440

through we don't do examples anymore we

518

00:22:45,350 --> 00:22:43,740

do work examples you know which means go

519

00:22:49,490 --> 00:22:45,360

through it step by step on the board so

520

00:22:52,210 --> 00:22:49,500

it's a worked example multiple exposures

521

00:22:55,310 --> 00:22:52,220

show them in different ways

522

00:22:57,350 --> 00:22:55,320

structuring lessons kind of obvious that

523

00:23:00,649 --> 00:22:57,360

a better structured lesson is going to

524

00:23:03,890 --> 00:23:00,659

work better explicit teaching but

525

00:23:06,529 --> 00:23:03,900

they're all these basic things that are

526

00:23:08,750 --> 00:23:06,539

totally back see it feels like we're

527

00:23:10,909 --> 00:23:08,760

going full circle yeah don't give

528

00:23:14,270 --> 00:23:10,919

feedback about everything it becomes

529

00:23:17,570 --> 00:23:14,280

meaningless give good thorough feedback

530

00:23:19,490 --> 00:23:17,580

about some things metacognition is still

531

00:23:22,250 --> 00:23:19,500

around there's still quite a big focus

532

00:23:24,890 --> 00:23:22,260

on metacognitive strategies teaching

533

00:23:27,710 --> 00:23:24,900

students to think about their thinking

534

00:23:30,230 --> 00:23:27,720

but yeah all this time later and this

535

00:23:32,390 --> 00:23:30,240

time you know backed by thousands of

536

00:23:35,210 --> 00:23:32,400

studies or tens of thousands of studies

537

00:23:38,630 --> 00:23:35,220

that as they say seem we seem to be

538

00:23:41,870 --> 00:23:38,640

going back to a teacher dented approach

539

00:23:44,990 --> 00:23:41,880

rather than inquiry learning I don't

540

00:23:47,810 --> 00:23:45,000

know how much evidence inquiry learning

541

00:23:49,669 --> 00:23:47,820

was supposed to have for it but

542

00:23:52,430 --> 00:23:49,679

so the only other thing that I really

543

00:23:54,890 --> 00:23:52,440

wanted to talk about is myths about

544

00:23:57,590 --> 00:23:54,900

homework because when I was going

545

00:24:00,470 --> 00:23:57,600

through University and then I was in my

546

00:24:03,049 --> 00:24:00,480

fifth year my one year of Education

547

00:24:06,350 --> 00:24:03,059

they talk quite a bit about homework and

548

00:24:08,149 --> 00:24:06,360

they actually said that in in Canada

549

00:24:10,730 --> 00:24:08,159

here or at least at University of

550

00:24:13,310 --> 00:24:10,740

British Columbia that homework at the

551

00:24:16,610 --> 00:24:13,320

lower levels was not it's not valuable

552

00:24:19,310 --> 00:24:16,620

it can detract from students enthusiasm

553

00:24:20,990 --> 00:24:19,320

of school etc etc and it was only in the

554

00:24:22,669 --> 00:24:21,000

higher grades that it becomes more

555

00:24:25,010 --> 00:24:22,679

important but it was really conditional

556

00:24:27,470 --> 00:24:25,020

on upon the student that was what I

557

00:24:29,810 --> 00:24:27,480

remember learning could be wrong but

558

00:24:32,390 --> 00:24:29,820

that's that was sort of my takeaway and

559

00:24:35,330 --> 00:24:32,400

I have a niece and nephew who were

560

00:24:36,950 --> 00:24:35,340

living in Arizona when I was right in

561

00:24:38,690 --> 00:24:36,960

the middle of my teaching career and

562

00:24:41,029 --> 00:24:38,700

they were getting homework in

563

00:24:44,450 --> 00:24:41,039

kindergarten and it was like an hour of

564

00:24:47,210 --> 00:24:44,460

homework a day in kindergarten and I

565

00:24:49,310 --> 00:24:47,220

remember them asking is this normal and

566

00:24:52,310 --> 00:24:49,320

I was quite horrified to be quite honest

567

00:24:54,230 --> 00:24:52,320

and and then over the years I've had a

568

00:24:55,430 --> 00:24:54,240

lot of pressure from parents you know

569

00:24:56,930 --> 00:24:55,440

what parent-teacher interviews they

570

00:24:58,010 --> 00:24:56,940

would come and say how come my students

571

00:24:59,990 --> 00:24:58,020

aren't getting this much homework

572

00:25:00,649 --> 00:25:00,000

they're not doing any math at home etc

573

00:25:02,690 --> 00:25:00,659

etc

574

00:25:05,390 --> 00:25:02,700

and I would try to explain to them look

575

00:25:07,010 --> 00:25:05,400

they're they've got 86 percent you know

576

00:25:08,510 --> 00:25:07,020

they're they're doing fine they don't

577

00:25:10,430 --> 00:25:08,520

need to be doing the homework they're

578

00:25:13,070 --> 00:25:10,440

doing the work in class obviously

579

00:25:15,770 --> 00:25:13,080

they're fine another student who wasn't

580

00:25:17,630 --> 00:25:15,780

passing I might recommend doing some

581

00:25:20,390 --> 00:25:17,640

homework with especially in the higher

582

00:25:23,510 --> 00:25:20,400

grades so it was really conditional upon

583

00:25:26,450 --> 00:25:23,520

the student and I learned as well I do

584

00:25:29,690 --> 00:25:26,460

remember in University being told don't

585

00:25:31,310 --> 00:25:29,700

over homework but give a lot of the same

586

00:25:33,769 --> 00:25:31,320

type of question because you're going to

587

00:25:36,769 --> 00:25:33,779

turn the kids off now if they need the

588

00:25:38,630 --> 00:25:36,779

extra practice that's fine but for most

589

00:25:40,610 --> 00:25:38,640

students they shouldn't have to do all

590

00:25:44,149 --> 00:25:40,620

the questions like every single question

591

00:25:46,970 --> 00:25:44,159

in a textbook Etc but I was astounded to

592

00:25:49,669 --> 00:25:46,980

find out as my niece and nephew went

593

00:25:52,130 --> 00:25:49,679

through school that there were teachers

594

00:25:54,590 --> 00:25:52,140

who did that gave just homework for the

595

00:25:56,990 --> 00:25:54,600

sake of homework and I would even hear

596

00:25:59,990 --> 00:25:57,000

people at professional developments

597

00:26:02,149 --> 00:26:00,000

occasionally that would say yes homework

598

00:26:04,730 --> 00:26:02,159

builds character after homework builds

599

00:26:06,529 --> 00:26:04,740

good work habits at home homework does

600

00:26:09,049 --> 00:26:06,539

all these things and I was really

601
00:26:10,970 --> 00:26:09,059
grateful to my son Graham my oldest son

602
00:26:13,130 --> 00:26:10,980
he when he was in university he really

603
00:26:15,110 --> 00:26:13,140
got into the skeptical movement and kind

604
00:26:16,909 --> 00:26:15,120
of introduced me to it and he bought me

605
00:26:19,789 --> 00:26:16,919
this book called The Homework myth and

606
00:26:22,430 --> 00:26:19,799
it was by Alfie Cohn and it was an

607
00:26:24,890 --> 00:26:22,440
amazing book because it went through and

608
00:26:26,810 --> 00:26:24,900
said people will say you know and he

609
00:26:29,450 --> 00:26:26,820
would name the people and he would say

610
00:26:31,549 --> 00:26:29,460
they would say well studies show that

611
00:26:33,890 --> 00:26:31,559
this many hours of homework per grade

612
00:26:36,289 --> 00:26:33,900
are essential to their development in

613
00:26:38,269 --> 00:26:36,299

the future and he would look up the

614

00:26:40,430 --> 00:26:38,279

study and actually read it and it would

615

00:26:43,430 --> 00:26:40,440

say the exact opposite of what this

616

00:26:45,230 --> 00:26:43,440

person was saying or they had just

617

00:26:47,450 --> 00:26:45,240

misunderstood it and it actually said

618

00:26:50,210 --> 00:26:47,460

the other thing as well so they you know

619

00:26:52,549 --> 00:26:50,220

they may have just misread it misread a

620

00:26:54,529 --> 00:26:52,559

line kept out a word that kind of thing

621

00:26:56,409 --> 00:26:54,539

it was astounding to me that people

622

00:26:58,850 --> 00:26:56,419

would say things like studies show

623

00:27:01,210 --> 00:26:58,860

without actually knowing the study I

624

00:27:03,950 --> 00:27:01,220

think that was really eye-opening to me

625

00:27:05,630 --> 00:27:03,960

and what about you guys how did you find

626
00:27:08,210 --> 00:27:05,640
it Kelly and let's start with the you

627
00:27:09,649 --> 00:27:08,220
asking so I was talking about Arizona

628
00:27:14,390 --> 00:27:09,659
well

629
00:27:16,070 --> 00:27:14,400
I think I am not necessarily a good

630
00:27:18,350 --> 00:27:16,080
person to speak on this because my

631
00:27:19,730 --> 00:27:18,360
students don't have homework because I

632
00:27:22,190 --> 00:27:19,740
work with students with severe multiple

633
00:27:23,690 --> 00:27:22,200
disabilities I probably don't have an

634
00:27:24,950 --> 00:27:23,700
informed opinion on that so I'll pass

635
00:27:26,990 --> 00:27:24,960
what about when you were going through

636
00:27:30,049 --> 00:27:27,000
school growing up oh going through

637
00:27:32,210 --> 00:27:30,059
school I so I was the student who took

638
00:27:34,310 --> 00:27:32,220

all of the AP classes and put everything

639

00:27:35,690 --> 00:27:34,320

on my plate but I was also the student

640

00:27:38,470 --> 00:27:35,700

who didn't do the homework until the

641

00:27:41,450 --> 00:27:38,480

night before so quite a few all-nighters

642

00:27:43,310 --> 00:27:41,460

learns actually just last year that I

643

00:27:44,930 --> 00:27:43,320

have ADHD so all of that all of a sudden

644

00:27:45,490 --> 00:27:44,940

made sense

645

00:27:48,289 --> 00:27:45,500

um

646

00:27:51,110 --> 00:27:48,299

that kind of feeds into this homework

647

00:27:53,870 --> 00:27:51,120

thing though homework can make some of

648

00:27:57,070 --> 00:27:53,880

those issues so much more pronounced

649

00:27:59,210 --> 00:27:57,080

like as someone with ADHD you give me

650

00:28:00,409 --> 00:27:59,220

homework that I need to do over the

651
00:28:01,850 --> 00:28:00,419
course of a week and I'm doing it the

652
00:28:03,649 --> 00:28:01,860
night before and then I'm not sleeping

653
00:28:06,649 --> 00:28:03,659
and I'm not being as effective a learner

654
00:28:08,990 --> 00:28:06,659
as I can be or I'm doing my homework in

655
00:28:10,549 --> 00:28:09,000
the class before it's due and then I'm

656
00:28:13,850 --> 00:28:10,559
not paying attention mentioned in that

657
00:28:16,190 --> 00:28:13,860
class I think it can cause a lot more

658
00:28:18,230 --> 00:28:16,200
issues than it solves and then on top of

659
00:28:20,630 --> 00:28:18,240
that you have

660
00:28:23,750 --> 00:28:20,640
homework especially at younger grades

661
00:28:25,549 --> 00:28:23,760
can exacerbate disparities among

662
00:28:28,549 --> 00:28:25,559
students because if you have students

663
00:28:29,990 --> 00:28:28,559

whose parents are home then they're

664

00:28:31,850 --> 00:28:30,000

going to be able to help them with the

665

00:28:33,710 --> 00:28:31,860

homework and you know get them through

666

00:28:35,149 --> 00:28:33,720

it meanwhile you might have students who

667

00:28:37,730 --> 00:28:35,159

don't have somebody at home who can help

668

00:28:39,049 --> 00:28:37,740

them or getting to the older grades you

669

00:28:40,789 --> 00:28:39,059

might have students who have to go to

670

00:28:42,830 --> 00:28:40,799

work after school right and so then

671

00:28:46,490 --> 00:28:42,840

that's exacerbating things or taking

672

00:28:49,970 --> 00:28:46,500

care of a sibling and that just kind of

673

00:28:52,669 --> 00:28:49,980

fuels those disparities yeah about 20

674

00:28:56,090 --> 00:28:52,679

years ago we had an official homework

675

00:28:59,269 --> 00:28:56,100

policy at my school and from memory and

676

00:29:03,649 --> 00:28:59,279

again unreliable after 20 years but we

677

00:29:06,710 --> 00:29:03,659

had this policy due to again the studies

678

00:29:08,870 --> 00:29:06,720

show Factor without ever seeing the

679

00:29:11,269 --> 00:29:08,880

studies but it became part of the

680

00:29:14,870 --> 00:29:11,279

students planner which is really just a

681

00:29:18,169 --> 00:29:14,880

diary and there's a page dedicated to it

682

00:29:21,230 --> 00:29:18,179

and honestly we had to set a certain

683

00:29:23,810 --> 00:29:21,240

amount of homework per week you know in

684

00:29:26,630 --> 00:29:23,820

accordance with these studies and I

685

00:29:28,850 --> 00:29:26,640

artificially did so I gave them extra

686

00:29:30,590 --> 00:29:28,860

worksheets they didn't need to do and

687

00:29:33,409 --> 00:29:30,600

things like that just to make these

688

00:29:36,230 --> 00:29:33,419

quotas you know wow and then I tried to

689

00:29:38,750 --> 00:29:36,240

make it meaningful but it you can't if

690

00:29:41,210 --> 00:29:38,760

you don't need it right you know and

691

00:29:44,269 --> 00:29:41,220

you're just doing it to achieve a set

692

00:29:47,149 --> 00:29:44,279

number of hours I think it's 1.5 hours a

693

00:29:48,769 --> 00:29:47,159

week for every subject and you know

694

00:29:50,330 --> 00:29:48,779

sometimes it just wasn't anything much

695

00:29:51,909 --> 00:29:50,340

that week and you'd have to make up

696

00:29:55,310 --> 00:29:51,919

something they didn't really need to do

697

00:29:58,010 --> 00:29:55,320

so that seems though to have been long

698

00:30:01,669 --> 00:29:58,020

gone I haven't heard anything about the

699

00:30:03,590 --> 00:30:01,679

homework policy for hours per week or

700

00:30:07,549 --> 00:30:03,600

night they should be working in

701
00:30:12,049 --> 00:30:07,559
absolutely ages and now I set meaningful

702
00:30:14,810 --> 00:30:12,059
homework as the need arises or stuff

703
00:30:17,450 --> 00:30:14,820
that is just better done at home for

704
00:30:19,970 --> 00:30:17,460
example learning to write uh Japanese

705
00:30:23,090 --> 00:30:19,980
car characters in the senior years where

706
00:30:25,430 --> 00:30:23,100
they have to learn 200 characters it's

707
00:30:27,830 --> 00:30:25,440
really not a good use of class time

708
00:30:31,250 --> 00:30:27,840
because it's just learned sitting out

709
00:30:34,490 --> 00:30:31,260
writing out the characters 20 plus times

710
00:30:37,070 --> 00:30:34,500
you know that takes half an hour

711
00:30:42,529 --> 00:30:37,080
so but it is a nice relaxing thing to do

712
00:30:45,169 --> 00:30:42,539
once a week never just for the sake of a

713
00:30:47,389 --> 00:30:45,179

certain number of hours is necessary for

714

00:30:49,549 --> 00:30:47,399

students to progress

715

00:30:51,110 --> 00:30:49,559

I love the the comment that you made

716

00:30:53,029 --> 00:30:51,120

which was the meaningful I think

717

00:30:55,370 --> 00:30:53,039

meaningful homework is so important

718

00:30:57,529 --> 00:30:55,380

because if it's not meaningful it

719

00:30:59,810 --> 00:30:57,539

becomes a burden for sure and it's

720

00:31:02,210 --> 00:30:59,820

interesting it twigged a memory in me I

721

00:31:05,450 --> 00:31:02,220

do remember there was a homework policy

722

00:31:07,549 --> 00:31:05,460

that was in their agendas in my first

723

00:31:10,430 --> 00:31:07,559

school that I taught over 30 years ago

724

00:31:14,029 --> 00:31:10,440

not so long ago now but if my memory is

725

00:31:17,510 --> 00:31:14,039

correct it said this is a guideline only

726

00:31:19,549 --> 00:31:17,520

I as a teacher did not have to make sure

727

00:31:21,850 --> 00:31:19,559

that my students were assigned a certain

728

00:31:26,149 --> 00:31:21,860

amount like you described I never

729

00:31:29,330 --> 00:31:26,159

experienced that I'm glad that's gone

730

00:31:31,730 --> 00:31:29,340

I just wanted to raise growth mindset

731

00:31:34,430 --> 00:31:31,740

versus fixed mindset which is the

732

00:31:37,909 --> 00:31:34,440

current Buzz thing are you getting that

733

00:31:40,190 --> 00:31:37,919

Cali yep yeah I'm out of the education

734

00:31:43,210 --> 00:31:40,200

system so why would you know it's it's

735

00:31:47,330 --> 00:31:43,220

the hot hot one at the moment

736

00:31:49,669 --> 00:31:47,340

as soon as I heard it I just shuddered

737

00:31:51,950 --> 00:31:49,679

and I thought oh no here comes another

738

00:31:55,850 --> 00:31:51,960

Guru

739

00:31:58,850 --> 00:31:55,860

um growth mindset versus fixed mindset

740

00:32:00,889 --> 00:31:58,860

is just creeping into everything in fact

741

00:32:03,470 --> 00:32:00,899

we are changing textbooks and Humanities

742

00:32:04,789 --> 00:32:03,480

and it was in the textbook in the

743

00:32:07,730 --> 00:32:04,799

teacher's book

744

00:32:11,450 --> 00:32:07,740

and I thought oh no this is just

745

00:32:14,210 --> 00:32:11,460

becoming gospel as things do whereas

746

00:32:17,810 --> 00:32:14,220

it's actually unproven it comes down to

747

00:32:20,769 --> 00:32:17,820

one person in the US and their theory

748

00:32:23,389 --> 00:32:20,779

that they've promoted heavily it's not

749

00:32:26,630 --> 00:32:23,399

evidence-based it's definitely not set

750

00:32:28,730 --> 00:32:26,640

of science but schools are taking it up

751
00:32:31,490 --> 00:32:28,740
at an alarming rate and we have to teach

752
00:32:34,730 --> 00:32:31,500
it in our end of year program for um

753
00:32:36,529 --> 00:32:34,740
well-being now and yeah very

754
00:32:39,409 --> 00:32:36,539
uncomfortable with it I always put the

755
00:32:42,350 --> 00:32:39,419
disclaimer in so excuse that this is not

756
00:32:46,010 --> 00:32:42,360
settled science you might find some of

757
00:32:48,830 --> 00:32:46,020
these useful as ticks but I refuse to

758
00:32:51,350 --> 00:32:48,840
say that it's categorically a thing so

759
00:32:54,769 --> 00:32:51,360
what exactly is growth mindset versus

760
00:32:58,010 --> 00:32:54,779
fixed mindset yeah well growth if you

761
00:33:00,710 --> 00:32:58,020
have a growth mindset apparently you

762
00:33:02,930 --> 00:33:00,720
believe you can do things

763
00:33:06,049 --> 00:33:02,940

sounds like the power of positive

764

00:33:08,450 --> 00:33:06,059

thinking and if you have a I fixed

765

00:33:11,750 --> 00:33:08,460

mindset you believe that your abilities

766

00:33:15,049 --> 00:33:11,760

are fixed and that you can't improve

767

00:33:18,110 --> 00:33:15,059

sounds like learning styles it's like it

768

00:33:20,269 --> 00:33:18,120

it's not about the need to practice and

769

00:33:22,370 --> 00:33:20,279

like I think it's generally accepted by

770

00:33:24,470 --> 00:33:22,380

everyone that you practice a skill to

771

00:33:26,450 --> 00:33:24,480

get better at it I don't even think we

772

00:33:29,509 --> 00:33:26,460

need studies to show you that and that

773

00:33:31,009 --> 00:33:29,519

if you don't give something a go of

774

00:33:32,690 --> 00:33:31,019

course you can't really know until

775

00:33:34,070 --> 00:33:32,700

you've tried a lot of things and of

776

00:33:35,990 --> 00:33:34,080

course you should try and you should

777

00:33:38,810 --> 00:33:36,000

persist for a while and you should show

778

00:33:41,930 --> 00:33:38,820

resilience but this whole thing that if

779

00:33:44,330 --> 00:33:41,940

you have this mindset you will succeed

780

00:33:46,190 --> 00:33:44,340

and if you don't you won't so you better

781

00:33:49,909 --> 00:33:46,200

break out of that one

782

00:33:52,669 --> 00:33:49,919

just puts too much to me it's again it's

783

00:33:55,549 --> 00:33:52,679

the false dichotomy you know we all

784

00:33:58,310 --> 00:33:55,559

believe we can do some things well and

785

00:34:00,289 --> 00:33:58,320

others not well we all believe that we

786

00:34:03,470 --> 00:34:00,299

all also believe that we can improve

787

00:34:06,889 --> 00:34:03,480

with practice but I also believe we know

788

00:34:09,109 --> 00:34:06,899

our limits without being told no no

789

00:34:11,389 --> 00:34:09,119

that's just a fixed mindset that you

790

00:34:14,089 --> 00:34:11,399

need to overcome and I think it's not

791

00:34:16,849 --> 00:34:14,099

really fair to birds in that because

792

00:34:19,609 --> 00:34:16,859

students like accusing them blaming the

793

00:34:22,010 --> 00:34:19,619

victims yeah it's using them of their

794

00:34:25,190 --> 00:34:22,020

mindset holding them back instead of

795

00:34:28,030 --> 00:34:25,200

focusing on the skills that they need

796

00:34:31,010 --> 00:34:28,040

you know it's very Law of Attraction

797

00:34:32,389 --> 00:34:31,020

yeah so if you fail it's your fault

798

00:34:36,109 --> 00:34:32,399

because you didn't have the right

799

00:34:38,270 --> 00:34:36,119

mindset yeah very toxic positivity like

800

00:34:42,409 --> 00:34:38,280

you just need to say I can do it all the

801
00:34:44,810 --> 00:34:42,419
time yeah so it bothers me that it's

802
00:34:47,389 --> 00:34:44,820
presented as a dichotomy even though

803
00:34:50,869 --> 00:34:47,399
that could never be and of course that's

804
00:34:53,869 --> 00:34:50,879
taking it to its extremes but still it

805
00:34:57,109 --> 00:34:53,879
just it makes me uncomfortable to even

806
00:35:00,109 --> 00:34:57,119
talk about it as a dichotomy and I I

807
00:35:02,210 --> 00:35:00,119
think it does actually while all the

808
00:35:05,770 --> 00:35:02,220
intentions are wonderful as you know

809
00:35:09,950 --> 00:35:05,780
positive is it can have some detrimental

810
00:35:13,550 --> 00:35:09,960
aspects I personally believe and worst

811
00:35:15,829 --> 00:35:13,560
of all it has no evidence

812
00:35:17,630 --> 00:35:15,839
first thing I did was look it up what's

813
00:35:20,870 --> 00:35:17,640

the evidence fixed mindset and growth

814

00:35:22,430 --> 00:35:20,880

mindset and there is none haven't been

815

00:35:25,670 --> 00:35:22,440

studies if someone's personal

816

00:35:27,470 --> 00:35:25,680

observation it's a guru thing again and

817

00:35:30,410 --> 00:35:27,480

their personal observations they haven't

818

00:35:34,130 --> 00:35:30,420

been studies there's nothing to back it

819

00:35:37,550 --> 00:35:34,140

up and yet it's been promoted now in

820

00:35:38,930 --> 00:35:37,560

swallows and I think a lot of that a lot

821

00:35:42,170 --> 00:35:38,940

of the pseudoscience we've talked about

822

00:35:45,109 --> 00:35:42,180

in general goes to like this

823

00:35:47,210 --> 00:35:45,119

idea of what feels right that that feels

824

00:35:48,770 --> 00:35:47,220

like a really good idea and that feels

825

00:35:50,870 --> 00:35:48,780

like what we should be doing oh learning

826

00:35:54,470 --> 00:35:50,880

styles I feel like I learn better from

827

00:35:57,410 --> 00:35:54,480

this and once it feels right we use our

828

00:35:59,510 --> 00:35:57,420

motivated reasoning to to justify it or

829

00:36:02,810 --> 00:35:59,520

we can find a few studies and cherry

830

00:36:05,630 --> 00:36:02,820

pick things that justify it I think also

831

00:36:07,730 --> 00:36:05,640

people might look at us talking about

832

00:36:10,190 --> 00:36:07,740

how these things are not backed by

833

00:36:12,290 --> 00:36:10,200

evidence as us completely bashing it and

834

00:36:14,510 --> 00:36:12,300

saying there's no value in it and that

835

00:36:16,010 --> 00:36:14,520

it's absolutely horrible we're not

836

00:36:17,390 --> 00:36:16,020

saying that it's horrible but we're

837

00:36:19,730 --> 00:36:17,400

saying that we want to do things that

838

00:36:21,109 --> 00:36:19,740

are backed by evidence and when

839

00:36:24,290 --> 00:36:21,119

something claims to be backed by

840

00:36:26,990 --> 00:36:24,300

evidence and it's not it's really hard

841

00:36:28,310 --> 00:36:27,000

to know how we should be approaching

842

00:36:30,349 --> 00:36:28,320

things

843

00:36:32,329 --> 00:36:30,359

I I think that's just kind of how

844

00:36:35,109 --> 00:36:32,339

Skeptics are viewed in general is like

845

00:36:38,089 --> 00:36:35,119

as the negatron who's bashing everything

846

00:36:39,589 --> 00:36:38,099

and that's not the intention the

847

00:36:41,750 --> 00:36:39,599

intention is I want to find the things

848

00:36:44,510 --> 00:36:41,760

that I should be doing but there's just

849

00:36:46,490 --> 00:36:44,520

mountains and mountains of woo around

850

00:36:48,410 --> 00:36:46,500

all of this and it makes it really hard

851
00:36:52,310 --> 00:36:48,420
to find out what the science actually

852
00:36:53,810 --> 00:36:52,320
says yeah exactly yeah and another thing

853
00:36:56,690 --> 00:36:53,820
is I think

854
00:36:58,250 --> 00:36:56,700
a lot of that positive thinking you

855
00:37:00,170 --> 00:36:58,260
wouldn't want to say a student can't do

856
00:37:01,670 --> 00:37:00,180
something and that's entirely fine if

857
00:37:04,069 --> 00:37:01,680
that's something a student is interested

858
00:37:06,530 --> 00:37:04,079
in and they want to do like students can

859
00:37:09,109 --> 00:37:06,540
do anything as somebody who recently

860
00:37:11,030 --> 00:37:09,119
realized I had ADHD I realized that a

861
00:37:12,530 --> 00:37:11,040
lot of the things that I was successful

862
00:37:15,470 --> 00:37:12,540
in were the things I was interested in

863
00:37:17,750 --> 00:37:15,480

but to say that this positive thinking

864

00:37:20,750 --> 00:37:17,760

is gonna make the student able to do

865

00:37:23,930 --> 00:37:20,760

this thing do they even want to

866

00:37:26,450 --> 00:37:23,940

yeah and just trying to kind of force

867

00:37:28,069 --> 00:37:26,460

that is going to be harmful to the

868

00:37:31,970 --> 00:37:28,079

student

869

00:37:34,670 --> 00:37:31,980

this idea of positive mindset seems to

870

00:37:37,310 --> 00:37:34,680

be pretty common in all of our culture

871

00:37:40,430 --> 00:37:37,320

if we believe we can do it we can do it

872

00:37:42,589 --> 00:37:40,440

you hear that over and over again we see

873

00:37:45,349 --> 00:37:42,599

it from movie stars we see it with

874

00:37:47,450 --> 00:37:45,359

musicians athletes they say don't give

875

00:37:50,150 --> 00:37:47,460

up on your dream just think positively

876

00:37:53,390 --> 00:37:50,160

think you can do it so this is something

877

00:37:56,150 --> 00:37:53,400

very ingrained in our culture which I

878

00:37:58,010 --> 00:37:56,160

think as you said Kelly can be harmful

879

00:38:00,349 --> 00:37:58,020

because there's very high expectations

880

00:38:01,910 --> 00:38:00,359

that most people can't meet it's just

881

00:38:04,490 --> 00:38:01,920

not going to happen

882

00:38:07,609 --> 00:38:04,500

but also I think it's to do with we now

883

00:38:10,370 --> 00:38:07,619

know about you know brain plasticity

884

00:38:12,109 --> 00:38:10,380

so now that we know that and that we

885

00:38:15,530 --> 00:38:12,119

that's you know spawn things like

886

00:38:19,310 --> 00:38:15,540

lifelong learning and brain plasticity

887

00:38:21,890 --> 00:38:19,320

is real yeah but uh you know some of the

888

00:38:24,230 --> 00:38:21,900

things that it generates maybe you know

889

00:38:25,430 --> 00:38:24,240

other theories associated with that I

890

00:38:29,270 --> 00:38:25,440

don't know

891

00:38:31,010 --> 00:38:29,280

um I'm waiting to see what the size is

892

00:38:33,170 --> 00:38:31,020

I'm not going to say it's not real

893

00:38:35,630 --> 00:38:33,180

growth perfect versus picks one because

894

00:38:40,730 --> 00:38:35,640

there's no evidence either way exactly

895

00:38:44,150 --> 00:38:40,740

yeah yes brain plasticity yes it's real

896

00:38:46,010 --> 00:38:44,160

growth mindset versus fixed mindset we

897

00:38:49,010 --> 00:38:46,020

don't know we don't know if that's real

898

00:38:51,170 --> 00:38:49,020

we should not be teaching as if it was

899

00:38:53,750 --> 00:38:51,180

settled yes

900

00:38:55,609 --> 00:38:53,760

and and brain plasticity how far can it

901

00:38:59,329 --> 00:38:55,619

go we don't do we know that

902

00:39:01,609 --> 00:38:59,339

I don't know yeah but now you say it's

903

00:39:05,270 --> 00:39:01,619

all still interesting areas of research

904

00:39:09,050 --> 00:39:07,069

well now that we've gotten into the

905

00:39:11,030 --> 00:39:09,060

weeds I've got a nice silly one to end

906

00:39:14,569 --> 00:39:11,040

off with and this is one that I probably

907

00:39:16,910 --> 00:39:14,579

hear more than anything else constantly

908

00:39:20,030 --> 00:39:16,920

and I wonder if it's as prevalent with

909

00:39:23,690 --> 00:39:20,040

you guys as well but whenever there's

910

00:39:26,510 --> 00:39:23,700

any particularly Rowdy student days or

911

00:39:29,150 --> 00:39:26,520

things like that it is constantly blamed

912

00:39:30,490 --> 00:39:29,160

on the full moon I thought you were

913

00:39:35,030 --> 00:39:30,500

going to say sugar

914

00:39:37,910 --> 00:39:35,040

oh that is a whole other story that we

915

00:39:41,030 --> 00:39:37,920

could get into but no I can't believe

916

00:39:44,390 --> 00:39:41,040

how prevalent that myth is that the full

917

00:39:46,730 --> 00:39:44,400

moon makes kids more hyper or misbehave

918

00:39:49,010 --> 00:39:46,740

more or things like that but it'll be to

919

00:39:50,930 --> 00:39:49,020

the point where I'll have teacher

920

00:39:53,870 --> 00:39:50,940

friends post like oh full Moon's coming

921

00:39:56,089 --> 00:39:53,880

up teachers get ready or even somebody

922

00:39:58,069 --> 00:39:56,099

who posted something along the lines of

923

00:40:02,150 --> 00:39:58,079

if you don't believe that the full moon

924

00:40:05,810 --> 00:40:02,160

causes kids to be more rambunctious you

925

00:40:07,550 --> 00:40:05,820

must not be a teacher and I'm not ready

926
00:40:10,130 --> 00:40:07,560
to start a fight over that or anything

927
00:40:12,410 --> 00:40:10,140
but like usually I just nod and smile

928
00:40:14,030 --> 00:40:12,420
but then I turn away and roll my eyes

929
00:40:16,550 --> 00:40:14,040
because I can't believe that that myth

930
00:40:18,530 --> 00:40:16,560
is still going rounds that is so funny

931
00:40:21,589 --> 00:40:18,540
maybe because I was always in a science

932
00:40:23,510 --> 00:40:21,599
department I don't recall ever anyone

933
00:40:28,190 --> 00:40:23,520
saying that to me even from a Humanities

934
00:40:30,890 --> 00:40:28,200
or anyone so no I have never had fellow

935
00:40:33,050 --> 00:40:30,900
teachers use that one the sugar one yes

936
00:40:34,849 --> 00:40:33,060
oh my goodness yes as you say that's a

937
00:40:36,530 --> 00:40:34,859
whole other topic

938
00:40:37,970 --> 00:40:36,540

and Michelle what about you with the

939

00:40:41,210 --> 00:40:37,980

moon I was gonna just I was gonna say

940

00:40:43,250 --> 00:40:41,220

I've assumed I would try King I think a

941

00:40:45,109 --> 00:40:43,260

lot of people do mean it jokingly but I

942

00:40:47,569 --> 00:40:45,119

actually had somebody try to start a

943

00:40:50,089 --> 00:40:47,579

fight with me over it once I think a lot

944

00:40:52,250 --> 00:40:50,099

of people do mean it jokingly but then

945

00:40:54,890 --> 00:40:52,260

that perpetuates it and it snowballs it

946

00:40:56,170 --> 00:40:54,900

and I have seen many people mean it very

947

00:40:59,150 --> 00:40:56,180

genuinely

948

00:41:00,410 --> 00:40:59,160

wow are they probably you know this is

949

00:41:02,630 --> 00:41:00,420

an assumption maybe they believe in

950

00:41:05,410 --> 00:41:02,640

astrology as well I mean there's that

951
00:41:09,770 --> 00:41:05,420
whole impact right of the Stars the moon

952
00:41:12,710 --> 00:41:09,780
I once I heard someone say that well the

953
00:41:14,990 --> 00:41:12,720
moon affects the tides so clearly the

954
00:41:17,630 --> 00:41:15,000
moon has an effect on Earth so why

955
00:41:20,390 --> 00:41:17,640
wouldn't it affect people's behaviors

956
00:41:22,550 --> 00:41:20,400
the size of the Moon that you see in the

957
00:41:25,970 --> 00:41:22,560
sky doesn't mean the moon's changing

958
00:41:29,510 --> 00:41:25,980
sizes or anything like a full moon does

959
00:41:31,670 --> 00:41:29,520
not mean that there's more Moon there

960
00:41:34,270 --> 00:41:31,680
and I know that's not what they believe

961
00:41:36,589 --> 00:41:34,280
but like

962
00:41:37,810 --> 00:41:36,599
that's an awesome one to finish with

963
00:41:39,829 --> 00:41:37,820

Kelly

964

00:41:42,050 --> 00:41:39,839

and maybe next time we'll get together

965

00:41:44,170 --> 00:41:42,060

and talk about the sugar one too

966

00:41:49,490 --> 00:41:44,180

yes oh boy

967

00:41:54,410 --> 00:41:52,069

well ladies this has been a blast and

968

00:41:56,450 --> 00:41:54,420

I'm so grateful that you decided to join

969

00:41:58,430 --> 00:41:56,460

me over multiple time zones thank you

970

00:41:59,830 --> 00:41:58,440

Kelly and thank you Michelle until next