



1  
00:00:00,790 --> 00:00:07,320

[Music]

2  
00:00:11,910 --> 00:00:09,080

[Applause]

3  
00:00:14,879 --> 00:00:11,920

thank you for coming allow me a second

4  
00:00:18,749 --> 00:00:14,889

to formally introduce myself to you in

5  
00:00:24,569 --> 00:00:18,759

my language ha de las Atlantis don't

6  
00:00:28,019 --> 00:00:24,579

Iguodala loggin caucus custody rlogin do

7  
00:00:33,270 --> 00:00:28,029

you HOT argan stas Tostig YK gan IO

8  
00:00:36,090 --> 00:00:33,280

agent D clink IKEA I Gargan startled WA

9  
00:00:39,150 --> 00:00:36,100

you know Dec young cuida you know Dec

10  
00:00:43,670 --> 00:00:39,160

young Wendy Smyth Yacht circuit here

11  
00:00:47,119 --> 00:00:43,680

addiction Donna Douglas the outer region

12  
00:00:51,410 --> 00:00:47,129

Alec Ruth Douglas teach in DiNardo young

13  
00:00:57,390 --> 00:00:51,420

Sam Elsie Douglas teach in donado Egan

14  
00:01:00,539 --> 00:00:57,400  
Sun Hat Kate descending onto Egan picked

15  
00:01:02,160 --> 00:01:00,549  
a honda lice tooth Egan so I said good

16  
00:01:04,410 --> 00:01:02,170  
people I'm happy to be here with you

17  
00:01:06,380 --> 00:01:04,420  
today I am Alaska Native Haida of the

18  
00:01:08,520 --> 00:01:06,390  
Eagleman idea of the fish egg house and

19  
00:01:11,760 --> 00:01:08,530  
in my introduction I always introduce

20  
00:01:14,910 --> 00:01:11,770  
myself as a Haida scientist as a way of

21  
00:01:17,219 --> 00:01:14,920  
encouraging students of diversity to see

22  
00:01:22,130 --> 00:01:17,229  
themselves as both their racial and

23  
00:01:27,300 --> 00:01:24,060  
in my community

24  
00:01:28,679 --> 00:01:27,310  
well my height a name is Dawson wha and

25  
00:01:31,770 --> 00:01:28,689  
before you leave you're gonna have to

26

00:01:34,709 --> 00:01:31,780

say it for we let you out the doors my

27

00:01:37,739 --> 00:01:34,719

elders named me that it means laughing

28

00:01:40,109 --> 00:01:37,749

lady because I laugh loud and they said

29

00:01:42,749 --> 00:01:40,119

it brings them joy and when my auntie

30

00:01:43,919 --> 00:01:42,759

named me she kind of gave me the side

31

00:01:45,870 --> 00:01:43,929

eye and looked at me and she said but

32

00:01:48,059 --> 00:01:45,880

I've seen you with your students so I'm

33

00:01:50,010 --> 00:01:48,069

gonna name you koleda as well so I'm

34

00:01:54,230 --> 00:01:50,020

laughing lady who will sit you down when

35

00:01:58,289 --> 00:01:54,240

you need it so that's my height a name

36

00:02:00,469 --> 00:01:58,299

my English name is Wendy Smythe and in

37

00:02:02,849 --> 00:02:00,479

my community as in many indigenous and

38

00:02:05,179 --> 00:02:02,859

culturally diverse communities were not

39

00:02:07,169 --> 00:02:05,189

known as individuals that's only in

40

00:02:09,389 --> 00:02:07,179

academia we have to be were an

41

00:02:10,919 --> 00:02:09,399

individual but I told you when I meet

42

00:02:12,090 --> 00:02:10,929

people I have to tell them who my family

43

00:02:14,160 --> 00:02:12,100

is so I told you that I'm the daughter

44

00:02:15,390 --> 00:02:14,170

of Donna Douglas the granddaughter of

45

00:02:17,720 --> 00:02:15,400

Alec and Ruth Douglas the

46

00:02:20,020 --> 00:02:17,730

great-granddaughter of Sam and Elsie

47

00:02:22,300 --> 00:02:20,030

great-great-great-great granddaughter of

48

00:02:24,940 --> 00:02:22,310

Hut and Kate and my people come from

49

00:02:27,070 --> 00:02:24,950

Heidelberg Alaska so I'm gonna talk

50

00:02:29,170 --> 00:02:27,080

today if you can read that anybody want

51  
00:02:31,210 --> 00:02:29,180  
to read that no it says the clean guy

52  
00:02:32,710 --> 00:02:31,220  
clicky yeah I Goggin I am a Haida

53  
00:02:34,630 --> 00:02:32,720  
scientist I'm an observer of the world

54  
00:02:37,510 --> 00:02:34,640  
and I'm going to talk about fostering

55  
00:02:41,770 --> 00:02:37,520  
inclusive education practices from K

56  
00:02:42,910 --> 00:02:41,780  
through 12 into funding agencies but

57  
00:02:45,520 --> 00:02:42,920  
first I would like to do a land

58  
00:02:48,370 --> 00:02:45,530  
acknowledgement we are on native land of

59  
00:02:51,960 --> 00:02:48,380  
the Duwamish people which include the

60  
00:02:55,060 --> 00:02:51,970  
Nisqually Samish coastal Salish and

61  
00:02:56,830 --> 00:02:55,070  
Skagit people and I want to acknowledge

62  
00:02:59,530 --> 00:02:56,840  
that they've been here for ten thousand

63  
00:03:00,940 --> 00:02:59,540

years or more and that thank them for

64

00:03:02,800 --> 00:03:00,950

allowing me to speak my language on

65

00:03:07,240 --> 00:03:02,810

their land and share my culture on their

66

00:03:09,040 --> 00:03:07,250

land do you huh dog it and I am Haida

67

00:03:10,720 --> 00:03:09,050

I'm going to tell you briefly who I am

68

00:03:13,270 --> 00:03:10,730

where I'm from and then we're gonna take

69

00:03:16,509 --> 00:03:13,280

a canoe journey together this is my

70

00:03:20,170 --> 00:03:16,519

family oh oh that's not my family

71

00:03:21,100 --> 00:03:20,180

hang on let me go back this is my

72

00:03:22,750 --> 00:03:21,110

great-great-great

73

00:03:25,449 --> 00:03:22,760

great-great-grandfather Chiefs on a Hut

74

00:03:27,100 --> 00:03:25,459

and his family this is my great

75

00:03:28,960 --> 00:03:27,110

grandmother she always had that

76

00:03:31,780 --> 00:03:28,970

expression on her face even as a little

77

00:03:33,160 --> 00:03:31,790

girl she taught me how to crochet and

78

00:03:36,819 --> 00:03:33,170

she would always rip it all out and do

79

00:03:43,090 --> 00:03:36,829

it again so she taught me a lesson every

80

00:03:44,560 --> 00:03:43,100

time these people read this this is

81

00:03:46,030 --> 00:03:44,570

thirteen year old me in Heidelberg

82

00:03:48,240 --> 00:03:46,040

Alaska with these amazingly large

83

00:03:52,030 --> 00:03:48,250

glasses playing Atari in an awesome

84

00:03:57,460 --> 00:03:52,040

rainbow unicorn shirt that tells you how

85

00:04:03,220 --> 00:03:57,470

old I am i played atari this person

86

00:04:05,620 --> 00:04:03,230

never imagined ever imagined that she

87

00:04:11,979 --> 00:04:05,630

would be a cultural practitioner in her

88

00:04:16,210 --> 00:04:11,989

community a scientist a geoscientist an

89

00:04:18,460 --> 00:04:16,220

oceanographer she never imagined that

90

00:04:21,009 --> 00:04:18,470

she would be an activist getting the

91

00:04:23,290 --> 00:04:21,019

honor and the ability to march with the

92

00:04:27,580 --> 00:04:23,300

native peoples climate march daca and

93

00:04:30,940 --> 00:04:27,590

women's rights never and most

94

00:04:33,330 --> 00:04:30,950

importantly I never imagined that I

95

00:04:35,070 --> 00:04:33,340

would be able to go home to my community

96

00:04:37,650 --> 00:04:35,080

and mentor the next generation of our

97

00:04:41,670 --> 00:04:37,660

people into science and technology

98

00:04:45,200 --> 00:04:41,680

engineering and math that's a brief bit

99

00:04:47,640 --> 00:04:45,210

of Who I am this is where I'm from

100

00:04:49,620 --> 00:04:47,650

mrs. Heidelberg this is a bit of who we

101

00:04:50,850 --> 00:04:49,630

are our culture is still alive our

102

00:04:52,260 --> 00:04:50,860

language is still alive we have two

103

00:04:53,969 --> 00:04:52,270

people who speak our language fluently

104

00:04:56,040 --> 00:04:53,979

we're trying to work in to reclaim that

105

00:04:56,820 --> 00:04:56,050

and I'll talk more about that but this

106

00:05:00,120 --> 00:04:56,830

is where I'm from

107

00:05:02,909 --> 00:05:00,130

this is where I grew up when I left

108

00:05:04,469 --> 00:05:02,919

Alaska I knew what Ravens and eagles and

109

00:05:06,030 --> 00:05:04,479

boats sounded like and I moved to

110

00:05:08,219 --> 00:05:06,040

Portland Oregon and didn't leave the

111

00:05:10,440 --> 00:05:08,229

house for two years until my sister

112

00:05:12,030 --> 00:05:10,450

who's in the front here moved moved down

113

00:05:13,920 --> 00:05:12,040

there and drugged me on the house

114

00:05:15,150 --> 00:05:13,930

because it's terrifying and that's

115

00:05:20,400 --> 00:05:15,160

something I'm going to talk about as a

116

00:05:22,680 --> 00:05:20,410

stressor for students what I do

117

00:05:24,469 --> 00:05:22,690

I'm a geoscientist I work in groundwater

118

00:05:26,850 --> 00:05:24,479

ecosystems looking at iron II manganese

119

00:05:30,210 --> 00:05:26,860

biomineralization biogeochemical cycling

120

00:05:31,890 --> 00:05:30,220

I work in native education coupling STEM

121

00:05:36,290 --> 00:05:31,900

disciplines with traditional knowledge

122

00:05:38,580 --> 00:05:36,300

culture and language for k-12 education

123

00:05:39,900 --> 00:05:38,590

and never in a million years what did I

124

00:05:42,750 --> 00:05:39,910

ever think I would end up working in the

125

00:05:43,920 --> 00:05:42,760

federal government and policy that's

126

00:05:47,550 --> 00:05:43,930

what I've been doing the last two years

127

00:05:52,290 --> 00:05:47,560

and it's been challenging and rewarding

128

00:05:56,550 --> 00:05:52,300

at the same time but I want to convince

129

00:05:57,960 --> 00:05:56,560

you today that a stirrer biology in

130

00:06:01,520 --> 00:05:57,970

traditional ways of knowing have a lot

131

00:06:03,270 --> 00:06:01,530

of commonalities we have a lot of

132

00:06:06,589 --> 00:06:03,280

misconceptions of what we're talking

133

00:06:09,600 --> 00:06:08,610

there's a lot of misconceptions of what

134

00:06:11,580 --> 00:06:09,610

we're talking about when we talk about

135

00:06:13,320 --> 00:06:11,590

traditional knowledge and when we're

136

00:06:15,210 --> 00:06:13,330

having these conversations about what is

137

00:06:18,390 --> 00:06:15,220

the differences I came up with cultural

138

00:06:20,580 --> 00:06:18,400

and scientific differences that it's all

139

00:06:22,589 --> 00:06:20,590

valid it's just how mainstream society

140

00:06:24,659 --> 00:06:22,599

perceives what we're doing right is

141

00:06:27,540 --> 00:06:24,669

there value in traditional knowledge and

142

00:06:28,680 --> 00:06:27,550

what does astrobiology mean most people

143

00:06:31,110 --> 00:06:28,690

know what it means based on what they

144

00:06:34,860 --> 00:06:31,120

get from TV or movies right and there's

145

00:06:36,210 --> 00:06:34,870

a fear there's a fear that we're gonna

146

00:06:38,219 --> 00:06:36,220

find something and we're not going to be

147

00:06:40,290 --> 00:06:38,229

the only ones here we have our own

148

00:06:42,089 --> 00:06:40,300

language when you talk in your

149

00:06:43,469 --> 00:06:42,099

discipline you have your own language

150

00:06:45,839 --> 00:06:43,479

and when you talk across discipline you

151

00:06:46,800 --> 00:06:45,849

use different words it's the same we

152

00:06:48,150 --> 00:06:46,810

have different language we

153

00:06:50,940 --> 00:06:48,160

have different words so there's some

154

00:06:53,250 --> 00:06:50,950

commonalities and so through this

155

00:06:55,020 --> 00:06:53,260

journey I want to encourage you to find

156

00:06:58,200 --> 00:06:55,030

if there's something in here that you

157

00:07:01,470 --> 00:06:58,210

can take to increase diversity in

158

00:07:03,980 --> 00:07:01,480

discipline that's in my next slide in

159

00:07:08,090 --> 00:07:03,990

discipline or human human diversity

160

00:07:15,150 --> 00:07:08,100

sexual orientation religious beliefs

161

00:07:16,440 --> 00:07:15,160

gender diversity enriches our life it

162

00:07:18,870 --> 00:07:16,450

puts us at the leading edge of

163

00:07:22,140 --> 00:07:18,880

technology if we all see the same thing

164

00:07:24,510 --> 00:07:22,150

we're not getting anywhere an example I

165

00:07:27,150 --> 00:07:24,520

like to use is in Alaska we have these

166

00:07:29,700 --> 00:07:27,160

amazing you probably have them here too

167

00:07:32,790 --> 00:07:29,710

cedar logs and if we say that this is in

168

00:07:34,890 --> 00:07:32,800

your lab in your research that cedar log

169

00:07:38,010 --> 00:07:34,900

is your hypothesis question or problem

170

00:07:40,440 --> 00:07:38,020

something you need to solve and I can

171

00:07:43,350 --> 00:07:40,450

survey this room what would you do with

172

00:07:47,570 --> 00:07:43,360

this cedar log some people would make

173

00:07:50,820 --> 00:07:47,580

firewood some people would build a house

174

00:07:53,610 --> 00:07:50,830

build furniture and someone else will

175

00:07:55,980 --> 00:07:53,620

build a canoe we're water people we

176

00:07:57,060 --> 00:07:55,990

build canoes out of cedar logs but

177

00:07:59,219 --> 00:07:57,070

there's different ways of approaching

178

00:08:01,290 --> 00:07:59,229

these problems and the beauty and

179

00:08:06,450 --> 00:08:01,300

diversity allows us to do this more

180

00:08:08,700 --> 00:08:06,460

effectively and quicker but the issue

181

00:08:10,860 --> 00:08:08,710

with the diversity also is we always

182

00:08:12,450 --> 00:08:10,870

have the promise right we're going to

183

00:08:14,180 --> 00:08:12,460

recruit you and it's gonna be amazing

184

00:08:15,990 --> 00:08:14,190

you're gonna have a fabulous career

185

00:08:17,129 --> 00:08:16,000

you're going to publish you're gonna

186

00:08:19,290 --> 00:08:17,139

learn you're gonna do all this amazing

187

00:08:20,700 --> 00:08:19,300

stuff but the reality is when we recruit

188

00:08:23,580 --> 00:08:20,710

our students the retention is the

189

00:08:26,040 --> 00:08:23,590

problem they end up isolated on a broken

190

00:08:28,020 --> 00:08:26,050

bridge alone and that's a stressor and

191

00:08:30,300 --> 00:08:28,030

we have to learn to address that within

192

00:08:33,719 --> 00:08:30,310

our disciplines and when we engage

193

00:08:35,670 --> 00:08:33,729

diverse communities so that's some

194

00:08:36,890 --> 00:08:35,680

background information so now we're

195

00:08:41,430 --> 00:08:36,900

going to take this canoe journey

196

00:08:45,030 --> 00:08:41,440

together and so as we go through the

197

00:08:47,550 --> 00:08:45,040

slides each step along this way that

198

00:08:49,590 --> 00:08:47,560

pictures blurry for a reason and as I

199

00:08:51,840 --> 00:08:49,600

move through my career and move through

200

00:08:54,930 --> 00:08:51,850

this journey it became more in focus of

201  
00:08:56,610 --> 00:08:54,940  
what I was doing and why so I started

202  
00:08:59,060 --> 00:08:56,620  
with Alaska native education and I did

203  
00:09:00,769 --> 00:08:59,070  
that because I was the only Haida

204  
00:09:01,960 --> 00:09:00,779  
I went to Asus the American India

205  
00:09:05,629 --> 00:09:01,970  
Science and Engineering Society

206  
00:09:08,660 --> 00:09:05,639  
conference in 2008 and there was no

207  
00:09:12,560 --> 00:09:08,670  
other height of their and I was Desiree

208  
00:09:16,759 --> 00:09:12,570  
disappointing and I decided that we were

209  
00:09:18,199 --> 00:09:16,769  
gonna we're gonna change this so I went

210  
00:09:19,759 --> 00:09:18,209  
home and started just working in the

211  
00:09:21,559 --> 00:09:19,769  
community working with the tribe asking

212  
00:09:22,999 --> 00:09:21,569  
what do they need it's working with them

213  
00:09:24,319 --> 00:09:23,009

not on them there's a difference in how

214

00:09:27,319 --> 00:09:24,329

we approach communities right

215

00:09:29,300 --> 00:09:27,329

we've been worked on a lot this time to

216

00:09:31,129 --> 00:09:29,310

partner with and work with and that

217

00:09:33,170 --> 00:09:31,139

takes a lifelong learning just like you

218

00:09:35,240 --> 00:09:33,180

want to learn and you constantly stay

219

00:09:36,680 --> 00:09:35,250

up-to-date on your research and the

220

00:09:38,629 --> 00:09:36,690

techniques and methods it's the same way

221

00:09:40,069 --> 00:09:38,639

with diversity you have to continually

222

00:09:41,689 --> 00:09:40,079

learn you don't get a certificate and

223

00:09:44,689 --> 00:09:41,699

instantly know and know it the rest of

224

00:09:46,400 --> 00:09:44,699

your life so we started this program

225

00:09:49,150 --> 00:09:46,410

with the objective of creating

226  
00:09:52,249 --> 00:09:49,160  
culturally aligned STEM education for

227  
00:09:54,290 --> 00:09:52,259  
k-12 students while providing cultural

228  
00:09:57,800 --> 00:09:54,300  
background for practitioners for the

229  
00:09:59,329 --> 00:09:57,810  
teachers in an ethical and culturally

230  
00:10:01,730 --> 00:09:59,339  
responsible way and our stakeholders

231  
00:10:05,000 --> 00:10:01,740  
were our students our teachers and

232  
00:10:06,350 --> 00:10:05,010  
administrators and the community in the

233  
00:10:09,710 --> 00:10:06,360  
school they're in the community of

234  
00:10:15,829 --> 00:10:09,720  
hydaburg there's 350 people 101 of those

235  
00:10:17,300 --> 00:10:15,839  
are students in K through 12 when we

236  
00:10:19,670 --> 00:10:17,310  
started their program they had no how-to

237  
00:10:21,590 --> 00:10:19,680  
language in the school when I was in

238  
00:10:23,540 --> 00:10:21,600

school we had had a language in art when

239

00:10:25,490 --> 00:10:23,550

I went back it was gone

240

00:10:27,980 --> 00:10:25,500

so we started bringing that back into

241

00:10:29,449 --> 00:10:27,990

the school and now they do from 6 to

242

00:10:31,430 --> 00:10:29,459

12th grade they have a Haida language

243

00:10:33,259 --> 00:10:31,440

all the teachers are non native they

244

00:10:34,790 --> 00:10:33,269

come and they teach they leave and that

245

00:10:37,730 --> 00:10:34,800

sets up a power dynamic within the

246

00:10:40,610 --> 00:10:37,740

school where the students pick their

247

00:10:42,559 --> 00:10:40,620

parents against the teachers you don't

248

00:10:43,910 --> 00:10:42,569

know who I am it's us in them and that

249

00:10:46,429 --> 00:10:43,920

is not a productive learning environment

250

00:10:48,829 --> 00:10:46,439

for the students so we're designing

251  
00:10:50,780 --> 00:10:48,839  
curriculum with our culture and

252  
00:10:54,920 --> 00:10:50,790  
knowledge in there is given these

253  
00:10:57,199 --> 00:10:54,930  
teachers an advantage in Alaska

254  
00:10:59,120 --> 00:10:57,209  
unfortunately it's like the Wild West

255  
00:11:00,410 --> 00:10:59,130  
for school for education there's not

256  
00:11:03,620 --> 00:11:00,420  
really any standards you can do whatever

257  
00:11:05,120 --> 00:11:03,630  
you want pretty much what you want in

258  
00:11:06,199 --> 00:11:05,130  
the classroom and that can be really

259  
00:11:09,829 --> 00:11:06,209  
great because you can do some very

260  
00:11:11,449 --> 00:11:09,839  
innovative amazing curriculum and

261  
00:11:12,700 --> 00:11:11,459  
education projects with your students or

262  
00:11:14,350 --> 00:11:12,710  
you can pretty much let them

263  
00:11:18,700 --> 00:11:14,360

TV and do whatever they want which is

264

00:11:22,210 --> 00:11:18,710

what was happening emphasis on was this

265

00:11:23,350 --> 00:11:22,220

year we opened our first immersion I

266

00:11:25,720 --> 00:11:23,360

told you there's only two fluent

267

00:11:27,100 --> 00:11:25,730

speakers of our language we opened our

268

00:11:29,320 --> 00:11:27,110

first immersion school called hum

269

00:11:31,390 --> 00:11:29,330

tonight it's three through five year old

270

00:11:32,980 --> 00:11:31,400

is our first generation in a hundred

271

00:11:35,770 --> 00:11:32,990

years who speak height as their first

272

00:11:37,600 --> 00:11:35,780

language there's two speakers that teach

273

00:11:39,970 --> 00:11:37,610

at the school and there's five

274

00:11:41,950 --> 00:11:39,980

apprentices in the idea what we're

275

00:11:43,360 --> 00:11:41,960

hoping to do is taking the work that

276

00:11:44,830 --> 00:11:43,370

we've done with the education the

277

00:11:47,080 --> 00:11:44,840

science education and developing and

278

00:11:49,270 --> 00:11:47,090

growing the language by giving a science

279

00:11:51,430 --> 00:11:49,280

glossary to the elders to develop work

280

00:11:53,230 --> 00:11:51,440

we had no word for computer we had no

281

00:11:54,670 --> 00:11:53,240

word for bacteria you have to grow up so

282

00:11:57,220 --> 00:11:54,680

we're growing the language and we're

283

00:11:58,450 --> 00:11:57,230

reclaiming it at the same time the

284

00:12:00,820 --> 00:11:58,460

apprentices are going to get their

285

00:12:01,870 --> 00:12:00,830

teaching certificate and teach these

286

00:12:04,240 --> 00:12:01,880

kids all through school they're going to

287

00:12:08,470 --> 00:12:04,250

learn and heighten hopefully that's the

288

00:12:10,450 --> 00:12:08,480

goal we're also currently working to my

289

00:12:13,120 --> 00:12:10,460

dream the reason I went back got my PhD

290

00:12:14,920 --> 00:12:13,130

was to start a tribal college in Alaska

291

00:12:17,110 --> 00:12:14,930

and we're getting a little bit closer

292

00:12:18,520 --> 00:12:17,120

every day last year we got the land now

293

00:12:23,440 --> 00:12:18,530

we're working to get accreditation and

294

00:12:24,970 --> 00:12:23,450

the funding to build the facility but we

295

00:12:27,040 --> 00:12:24,980

have to before we start doing any

296

00:12:28,180 --> 00:12:27,050

curriculum or teaching we have to know

297

00:12:31,330 --> 00:12:28,190

what these students are going to face

298

00:12:33,100 --> 00:12:31,340

and those perceptions of self can I be a

299

00:12:36,160 --> 00:12:33,110

scientist I can tell you 13-year old me

300

00:12:38,020 --> 00:12:36,170

didn't think that the environment is so

301

00:12:39,850 --> 00:12:38,030

different that's a stressor that we

302

00:12:44,110 --> 00:12:39,860

often don't consider because we live in

303

00:12:47,620 --> 00:12:44,120

a society where we're not isolated is

304

00:12:50,260 --> 00:12:47,630

there support from the community keep in

305

00:12:52,930 --> 00:12:50,270

mind if you're let me say I don't want

306

00:12:56,890 --> 00:12:52,940

to single anybody out but if you're 60

307

00:12:59,200 --> 00:12:56,900

year older in your lifetime it was

308

00:13:05,200 --> 00:12:59,210

illegal for me to speak Haida and

309

00:13:09,160 --> 00:13:05,210

practice my culture the community

310

00:13:11,170 --> 00:13:09,170

my mother is 70 she was in the boarding

311

00:13:13,330 --> 00:13:11,180

school generation boarding school trauma

312

00:13:15,970 --> 00:13:13,340

that historical trauma is alive and well

313

00:13:18,100 --> 00:13:15,980

in Indian country so that what that does

314

00:13:21,340 --> 00:13:18,110

is gives a perception in a lot of

315

00:13:22,720 --> 00:13:21,350

communities that education is bad it's

316

00:13:23,650 --> 00:13:22,730

gonna damage you it's gonna hurt you're

317

00:13:25,150 --> 00:13:23,660

gonna lose your culture you're going to

318

00:13:25,860 --> 00:13:25,160

get abused you're gonna get hurt so we

319

00:13:27,300 --> 00:13:25,870

have to change

320

00:13:30,210 --> 00:13:27,310

that culture within the community of

321

00:13:31,590 --> 00:13:30,220

what getting an education means and if

322

00:13:33,980 --> 00:13:31,600

your community your family doesn't

323

00:13:36,500 --> 00:13:33,990

support you you're not going to succeed

324

00:13:39,420 --> 00:13:36,510

knowledgebase again I told you about the

325

00:13:42,329 --> 00:13:39,430

standards alignment in the state we're

326

00:13:45,000 --> 00:13:42,339

working on that but are they up to par

327

00:13:47,730 --> 00:13:45,010

when they want to go to college I can

328

00:13:50,430 --> 00:13:47,740

tell you we're not it took me nine years

329

00:13:52,769 --> 00:13:50,440

to get an associate's degree and six

330

00:13:55,550 --> 00:13:52,779

years when I got up to par to get my PhD

331

00:13:59,430 --> 00:13:55,560

it takes time to catch up

332

00:14:01,320 --> 00:13:59,440

financial even if the grants and

333

00:14:02,280 --> 00:14:01,330

scholarships are there if the parents

334

00:14:03,180 --> 00:14:02,290

don't know where to look and the

335

00:14:05,370 --> 00:14:03,190

students don't know where to look

336

00:14:09,120 --> 00:14:05,380

they're not going to apply and that

337

00:14:10,200 --> 00:14:09,130

money means nothing the expectations so

338

00:14:12,810 --> 00:14:10,210

I can go in there and tell a student

339

00:14:14,610 --> 00:14:12,820

you're going to be a scientist and they

340

00:14:16,140 --> 00:14:14,620

can go off to school and the reality is

341

00:14:17,700 --> 00:14:16,150

very different you don't just walk in

342

00:14:19,260 --> 00:14:17,710

and walk out with a degree you have to

343

00:14:20,640 --> 00:14:19,270

put the work in you've got to do the

344

00:14:22,350 --> 00:14:20,650

chemistry the biology you got to do all

345

00:14:25,769 --> 00:14:22,360

these classes and they not prepared for

346

00:14:26,970 --> 00:14:25,779

that school resources and that comes

347

00:14:28,890 --> 00:14:26,980

from P eyes I think when you're

348

00:14:30,900 --> 00:14:28,900

recruiting diverse students are you

349

00:14:34,769 --> 00:14:30,910

prepared for the need of that student

350

00:14:38,280 --> 00:14:34,779

and tokenism I think that is one of the

351  
00:14:44,610 --> 00:14:38,290  
most damaging things that is not thought

352  
00:14:46,680 --> 00:14:44,620  
about and I say that because I am I

353  
00:14:48,870 --> 00:14:46,690  
represent my family right now I'm

354  
00:14:51,870 --> 00:14:48,880  
speaking to you as a hadass woman I'm

355  
00:14:55,920 --> 00:14:51,880  
representing my community I can tell you

356  
00:14:57,810 --> 00:14:55,930  
time and time again that I have had p

357  
00:15:00,660 --> 00:14:57,820  
eyes tell me I couldn't be a scientist

358  
00:15:02,310 --> 00:15:00,670  
there were my mentors you can't be a

359  
00:15:05,240 --> 00:15:02,320  
scientist but I want to put you on this

360  
00:15:08,190 --> 00:15:05,250  
grant I want to work in your community

361  
00:15:11,730 --> 00:15:08,200  
but you're not a scientist I just need

362  
00:15:13,800 --> 00:15:11,740  
you so now you're asking me that you put

363  
00:15:15,560 --> 00:15:13,810

me in a moral dilemma you put your

364

00:15:18,360 --> 00:15:15,570

students in a moral dilemma of choosing

365

00:15:21,240 --> 00:15:18,370

to move forward in their career and be

366

00:15:24,210 --> 00:15:21,250

successful or use their community and

367

00:15:25,740 --> 00:15:24,220

their family to get you ahead and it's

368

00:15:27,000 --> 00:15:25,750

not thought of like that but we have to

369

00:15:29,280 --> 00:15:27,010

start thinking of what we're asking our

370

00:15:32,640 --> 00:15:29,290

students to do and our early career

371

00:15:34,710 --> 00:15:32,650

faculty to do don't just put someone on

372

00:15:36,360 --> 00:15:34,720

there to get the grant put them on there

373

00:15:40,699 --> 00:15:36,370

because they're going to enrich and help

374

00:15:47,429 --> 00:15:43,139

so what we did we reimagined STEM

375

00:15:49,949 --> 00:15:47,439

education I call it the we used a new

376

00:15:52,379 --> 00:15:49,959

approach I often call recruitment and

377

00:15:54,419 --> 00:15:52,389

retention recruitment specifically the

378

00:15:56,369 --> 00:15:54,429

hit and run approach we find a student

379

00:15:59,340 --> 00:15:56,379

there doing fabulous I'm going to

380

00:16:01,379 --> 00:15:59,350

recruit you not considering the needs of

381

00:16:03,689 --> 00:16:01,389

that student to have the ties with their

382

00:16:05,400 --> 00:16:03,699

family the obligations they have in the

383

00:16:09,599 --> 00:16:05,410

summertime a lot of students have to go

384

00:16:11,249 --> 00:16:09,609

harvest that's not considered so when we

385

00:16:12,840 --> 00:16:11,259

went in and this was in my own community

386

00:16:14,720 --> 00:16:12,850

I had to work two years with my elders

387

00:16:17,159 --> 00:16:14,730

to get permission to teach in the school

388

00:16:18,900 --> 00:16:17,169

so think of how it is when you go from

389

00:16:20,099 --> 00:16:18,910

outside you're outside the community

390

00:16:22,489 --> 00:16:20,109

trying to work with them it's a little

391

00:16:25,079 --> 00:16:22,499

difficult but we started with the elders

392

00:16:27,809 --> 00:16:25,089

we worked through the community and it

393

00:16:28,319 --> 00:16:27,819

we finally got to where students work

394

00:16:30,780 --> 00:16:28,329

with us

395

00:16:31,669 --> 00:16:30,790

and are going to school and we'll talk

396

00:16:34,409 --> 00:16:31,679

about that in a minute

397

00:16:36,539 --> 00:16:34,419

we keep the community involved we have a

398

00:16:38,249 --> 00:16:36,549

Science Fair every year the students do

399

00:16:40,409 --> 00:16:38,259

presentations it's their only time ever

400

00:16:42,389 --> 00:16:40,419

doing a public presentation I bring

401  
00:16:44,340 --> 00:16:42,399  
seven to eight scientists up from any

402  
00:16:46,109 --> 00:16:44,350  
field if they want to come they contact

403  
00:16:48,479 --> 00:16:46,119  
me we do an interview we talk about the

404  
00:16:51,239 --> 00:16:48,489  
environment what they what isn't can it

405  
00:16:53,100 --> 00:16:51,249  
can't be done they come in and do

406  
00:16:54,539 --> 00:16:53,110  
hands-on demonstrations so that the

407  
00:16:56,220 --> 00:16:54,549  
community the students get this

408  
00:16:56,609 --> 00:16:56,230  
enrichment that they wouldn't have seen

409  
00:16:58,650 --> 00:16:56,619  
before

410  
00:17:00,479 --> 00:16:58,660  
we stop talking about science is one

411  
00:17:03,449 --> 00:17:00,489  
thing getting to do the hands-on part is

412  
00:17:07,230 --> 00:17:03,459  
another we also brought in native

413  
00:17:08,340 --> 00:17:07,240

mentors and I say I failed my students

414

00:17:10,049 --> 00:17:08,350

in the beginning because the first two

415

00:17:12,840 --> 00:17:10,059

or three years I only brought in on

416

00:17:14,639 --> 00:17:12,850

natives because I really wanted pis and

417

00:17:15,899 --> 00:17:14,649

graduate students to understand what it

418

00:17:17,819 --> 00:17:15,909

was like to work with our communities

419

00:17:19,829 --> 00:17:17,829

but I wasn't giving the students what

420

00:17:22,409 --> 00:17:19,839

they needed they needed Native mentors

421

00:17:25,319 --> 00:17:22,419

and once I realized that and I'll show

422

00:17:26,939 --> 00:17:25,329

you that the impact that had I'm in a

423

00:17:29,730 --> 00:17:26,949

couple slides so I started bringing

424

00:17:32,789 --> 00:17:29,740

engineers educators cultural

425

00:17:36,389 --> 00:17:32,799

practitioners up and doing work with us

426  
00:17:38,269 --> 00:17:36,399  
now we've had 40 students go to aces I'm

427  
00:17:42,720 --> 00:17:38,279  
not the only one there

428  
00:17:46,379 --> 00:17:42,730  
we've worked across inter tribal

429  
00:17:47,509 --> 00:17:46,389  
collaborations and I do that and what I

430  
00:17:50,190 --> 00:17:47,519  
like to talk about with that is

431  
00:17:51,330 --> 00:17:50,200  
sometimes I'm the only native you're

432  
00:17:53,420 --> 00:17:51,340  
going to meet

433  
00:17:55,650 --> 00:17:53,430  
and I represent every native person an

434  
00:17:58,650 --> 00:17:55,660  
Indian as an Indian as an Indian and

435  
00:18:00,780 --> 00:17:58,660  
that's simply not true there are 567

436  
00:18:03,510 --> 00:18:00,790  
federally recognized tribes 220 in a

437  
00:18:06,180 --> 00:18:03,520  
state of Alaska we have a similarity a

438  
00:18:07,140 --> 00:18:06,190

commonality where sovereign nations we

439

00:18:08,670 --> 00:18:07,150

have our own IRB s

440

00:18:10,200 --> 00:18:08,680

we have our own protocols for working

441

00:18:16,400 --> 00:18:10,210

with our communities but that is

442

00:18:20,430 --> 00:18:18,600

as we move farther along the canoe

443

00:18:23,490 --> 00:18:20,440

journey we started working with the

444

00:18:26,340 --> 00:18:23,500

students was going good students are

445

00:18:27,780 --> 00:18:26,350

engaged now teachers are engaged we

446

00:18:31,320 --> 00:18:27,790

started talking to teachers and they

447

00:18:32,430 --> 00:18:31,330

said I just don't know what to do the

448

00:18:34,260 --> 00:18:32,440

students are pitting their family

449

00:18:35,970 --> 00:18:34,270

against me I don't know what to do I'm

450

00:18:38,310 --> 00:18:35,980

like this is the first time in their

451

00:18:41,160 --> 00:18:38,320

life they're the only non-native in the

452

00:18:43,950 --> 00:18:41,170

room it's the first time and they're

453

00:18:46,080 --> 00:18:43,960

there for nine months what do they do

454

00:18:50,730 --> 00:18:46,090

they stay home they go to work and they

455

00:18:53,310 --> 00:18:50,740

stay home so we develop curriculum in a

456

00:18:56,630 --> 00:18:53,320

nested approach using culture language

457

00:18:57,930 --> 00:18:56,640

elders the needs of the community

458

00:19:01,620 --> 00:18:57,940

place-based

459

00:19:03,420 --> 00:19:01,630

project-based learning two points two

460

00:19:05,910 --> 00:19:03,430

reasons to do that one was to give the

461

00:19:07,950 --> 00:19:05,920

students they know their culture they

462

00:19:10,110 --> 00:19:07,960

know our creation story they know our

463

00:19:12,810 --> 00:19:10,120

stories but they don't see science in it

464

00:19:14,930 --> 00:19:12,820

when you ask them what do you know

465

00:19:17,640 --> 00:19:14,940

they hunched over I don't know anything

466

00:19:20,490 --> 00:19:17,650

tell me where you fish and we start

467

00:19:22,590 --> 00:19:20,500

mapping it out and then tying science

468

00:19:23,970 --> 00:19:22,600

into it you see this complete change and

469

00:19:26,490 --> 00:19:23,980

how they perceive themselves

470

00:19:28,620 --> 00:19:26,500

oh where I go fishing there's ecology

471

00:19:31,350 --> 00:19:28,630

ocean chemistry biology there's

472

00:19:35,940 --> 00:19:31,360

everything involved in that so it's so

473

00:19:38,490 --> 00:19:35,950

for they can see the validity of our

474

00:19:41,640 --> 00:19:38,500

knowledge system and how it allows them

475

00:19:42,630 --> 00:19:41,650

to be a scientist for the teachers we

476  
00:19:44,490 --> 00:19:42,640  
needed to give them some information

477  
00:19:47,040 --> 00:19:44,500  
that they weren't getting and that was

478  
00:19:49,560 --> 00:19:47,050  
giving them traditional stories so we

479  
00:19:53,190 --> 00:19:49,570  
did five curriculum chapters all with

480  
00:19:54,630 --> 00:19:53,200  
traditional story each story goes from K

481  
00:19:56,520 --> 00:19:54,640  
through 12 there's a curriculum module

482  
00:19:58,500 --> 00:19:56,530  
at each story so as that student moves

483  
00:20:01,410 --> 00:19:58,510  
through school they see another piece of

484  
00:20:03,880 --> 00:20:01,420  
science in examples our creation who

485  
00:20:07,430 --> 00:20:03,890  
sees that's our next slide yes

486  
00:20:09,440 --> 00:20:07,440  
our creation story talks about where we

487  
00:20:11,320 --> 00:20:09,450  
came from it's grounded in spirituality

488  
00:20:13,850 --> 00:20:11,330

supernatural beings where we came from

489

00:20:19,039 --> 00:20:13,860

but we tied that into evolution and

490

00:20:21,320 --> 00:20:19,049

taught evolution using that story using

491

00:20:24,019 --> 00:20:21,330

culture engage the students and engage

492

00:20:26,870 --> 00:20:24,029

the teachers and an example of that is

493

00:20:28,610 --> 00:20:26,880

we've if you've taught if you ta tour

494

00:20:30,049 --> 00:20:28,620

taught students before or high school

495

00:20:33,799 --> 00:20:30,059

kids what do they do when you start

496

00:20:36,139 --> 00:20:33,809

talking them about pH and chemistry not

497

00:20:39,260 --> 00:20:36,149

enough right see that head jerk over and

498

00:20:41,750 --> 00:20:39,270

over glazed over they start having these

499

00:20:43,430 --> 00:20:41,760

distracting behaviors because if you're

500

00:20:44,630 --> 00:20:43,440

distracted by what I'm doing you're not

501  
00:20:47,539 --> 00:20:44,640  
going to call on me to answer your

502  
00:20:52,310 --> 00:20:47,549  
question so we started another way

503  
00:20:55,039 --> 00:20:52,320  
reimagining stem and I said okay we

504  
00:20:56,960 --> 00:20:55,049  
weave with spruce roots tell me what you

505  
00:20:59,570 --> 00:20:56,970  
know about it and again we made the list

506  
00:21:01,669 --> 00:20:59,580  
you have to have a certain type of

507  
00:21:06,470 --> 00:21:01,679  
beachwear to get the roots the soil has

508  
00:21:08,450 --> 00:21:06,480  
to have a certain acidity okay why then

509  
00:21:10,070 --> 00:21:08,460  
they go through it acidic soil makes the

510  
00:21:11,450 --> 00:21:10,080  
roots stringy and they take they break

511  
00:21:13,090 --> 00:21:11,460  
and you can't weave so let me start

512  
00:21:16,789 --> 00:21:13,100  
tying and coupling that with geology

513  
00:21:18,560 --> 00:21:16,799

algebra to weave chemistry botany we tie

514

00:21:20,000 --> 00:21:18,570

it all in and we developed these

515

00:21:23,389 --> 00:21:20,010

curriculum modules this is what they

516

00:21:25,810 --> 00:21:23,399

look like this is oh sorry I hit the

517

00:21:30,610 --> 00:21:28,250

climate change using totem poles for

518

00:21:33,500 --> 00:21:30,620

dendrochronology ocean acidification

519

00:21:36,529 --> 00:21:33,510

using shift worms as indicators of

520

00:21:38,299 --> 00:21:36,539

environmental health right here and here

521

00:21:40,519 --> 00:21:38,309

and there's this project along the

522

00:21:42,830 --> 00:21:40,529

students have been doing for nine years

523

00:21:44,720 --> 00:21:42,840

the data that they got from this project

524

00:21:46,130 --> 00:21:44,730

was turned over to the tribe and the

525

00:21:48,019 --> 00:21:46,140

tribe got a three million dollar grant

526  
00:21:50,570 --> 00:21:48,029  
from the state of Alaska for remediation

527  
00:21:52,370 --> 00:21:50,580  
of their marina they're doing science

528  
00:21:54,139 --> 00:21:52,380  
within their community for the benefit

529  
00:21:56,539 --> 00:21:54,149  
of their community and we're also doing

530  
00:21:58,310 --> 00:21:56,549  
workforce development as well as

531  
00:21:59,690 --> 00:21:58,320  
creating jobs for these students when

532  
00:22:01,340 --> 00:21:59,700  
they if they decide not to go to school

533  
00:22:05,060 --> 00:22:01,350  
that's fine they have a job in the

534  
00:22:10,270 --> 00:22:06,920  
so we created science learning

535  
00:22:13,400 --> 00:22:10,280  
opportunities through the science fair

536  
00:22:15,800 --> 00:22:13,410  
place-based learning conferences are

537  
00:22:17,330 --> 00:22:15,810  
extremely important that's their one

538  
00:22:21,200 --> 00:22:17,340

time to go three to five days outside

539

00:22:24,530 --> 00:22:21,210

this community and come to Seattle New

540

00:22:26,090 --> 00:22:24,540

Mexico wherever wherever the conference

541

00:22:27,680 --> 00:22:26,100

is held and they get that little bit of

542

00:22:29,390 --> 00:22:27,690

exposure in a peer group where they feel

543

00:22:31,490 --> 00:22:29,400

safe and they get to go back home and

544

00:22:33,170 --> 00:22:31,500

they think through that and those

545

00:22:34,460 --> 00:22:33,180

students who have participated are the

546

00:22:37,490 --> 00:22:34,470

ones that are going to college they're

547

00:22:42,710 --> 00:22:37,500

more prepared when they go they do

548

00:22:43,970 --> 00:22:42,720

internships with us we always work do

549

00:22:46,190 --> 00:22:43,980

their internships where one day a week

550

00:22:48,740 --> 00:22:46,200

they do culture so they go and help

551

00:22:50,390 --> 00:22:48,750

their family harvest or whatever they

552

00:22:51,800 --> 00:22:50,400

have to do a culture day and they're

553

00:22:53,510 --> 00:22:51,810

happy to do that we work

554

00:22:56,150 --> 00:22:53,520

cross-discipline whatever they want to

555

00:22:57,260 --> 00:22:56,160

learn all I tell them is if you want to

556

00:22:59,890 --> 00:22:57,270

learn something you need to tell me and

557

00:23:06,320 --> 00:22:59,900

I'll find someone who wants to teach you

558

00:23:08,900 --> 00:23:06,330

inquiry-based and culturally aligned so

559

00:23:12,230 --> 00:23:08,910

with the multiple ways of knowing what

560

00:23:14,150 --> 00:23:12,240

is the benefit of it well we have these

561

00:23:15,950 --> 00:23:14,160

holistic knowledge systems right for

562

00:23:18,440 --> 00:23:15,960

traditional ways of knowing when I talk

563

00:23:20,420 --> 00:23:18,450

about when I ask them about weaving

564

00:23:22,180 --> 00:23:20,430

they're gonna tell me all this stuff

565

00:23:24,950 --> 00:23:22,190

about chemistry and botany and biology

566

00:23:27,410 --> 00:23:24,960

but to them it's one thing it's one

567

00:23:28,910 --> 00:23:27,420

knowledge system and that's how they

568

00:23:31,700 --> 00:23:28,920

think and I know that because that's how

569

00:23:34,160 --> 00:23:31,710

I would think but when they go into

570

00:23:35,810 --> 00:23:34,170

academia what do we get and we know this

571

00:23:37,820 --> 00:23:35,820

if we're in Geoscience and astrobiology

572

00:23:40,160 --> 00:23:37,830

it is very hard to work with people who

573

00:23:42,620 --> 00:23:40,170

want the pure science right because

574

00:23:45,200 --> 00:23:42,630

everything's compartmentalized it has to

575

00:23:46,730 --> 00:23:45,210

be just geology has to be just chemistry

576

00:23:48,920 --> 00:23:46,740

and that's a different way of thinking

577

00:23:50,810 --> 00:23:48,930

it's not a holistic way everything's not

578

00:23:53,600 --> 00:23:50,820

connected and so our students struggle

579

00:23:55,760 --> 00:23:53,610

to think to flip in and out of this way

580

00:23:57,530 --> 00:23:55,770

of thinking so if we can do this and

581

00:24:01,640 --> 00:23:57,540

teach them to think like this when

582

00:24:04,640 --> 00:24:01,650

they're in pre-college the hope is that

583

00:24:06,380 --> 00:24:04,650

they'll be able and what we've seen is

584

00:24:07,280 --> 00:24:06,390

they're able to talk to two different

585

00:24:09,800 --> 00:24:07,290

groups of people

586

00:24:12,380 --> 00:24:09,810

seamlessly they can talk across

587

00:24:14,750 --> 00:24:12,390

discipline they can crop talk to their

588

00:24:16,580 --> 00:24:14,760

family using holistic knowledge they can

589

00:24:18,250 --> 00:24:16,590

talk to us at the school talking in this

590

00:24:19,840 --> 00:24:18,260

compartmentalized way and what that

591

00:24:22,150 --> 00:24:19,850

it gives them the ability to develop

592

00:24:24,100 --> 00:24:22,160

critical thinking skills earlier than

593

00:24:25,810 --> 00:24:24,110

they would have so when they go to

594

00:24:30,190 --> 00:24:25,820

college they have critical thinking

595

00:24:32,190 --> 00:24:30,200

skills and it gives them an advantage so

596

00:24:34,299 --> 00:24:32,200

the community changed what did we see

597

00:24:37,600 --> 00:24:34,309

so I told you the first two or three

598

00:24:41,080 --> 00:24:37,610

years what I would ask them and I do it

599

00:24:44,080 --> 00:24:41,090

every year we have 75 students from 5th

600

00:24:49,330 --> 00:24:44,090

to Walt grade and what I ask them to do

601  
00:24:51,130 --> 00:24:49,340  
is close your eyes and I count to 10 and

602  
00:24:52,900 --> 00:24:51,140  
then one a moment say I'm gonna say a

603  
00:24:56,049 --> 00:24:52,910  
word no way to write the first three

604  
00:25:00,630 --> 00:24:56,059  
things you think of and they all kept 75

605  
00:25:03,700 --> 00:25:00,640  
kids came up with seven words white male

606  
00:25:06,510 --> 00:25:03,710  
balled crazy hair you know the typical

607  
00:25:09,100 --> 00:25:06,520  
stereotypical things we see in cartoons

608  
00:25:11,340 --> 00:25:09,110  
in mainstream media for what a scientist

609  
00:25:15,640 --> 00:25:11,350  
is and as far as I know in my community

610  
00:25:17,260 --> 00:25:15,650  
that person doesn't live there we always

611  
00:25:18,580 --> 00:25:17,270  
say D Coogan a log and we're crazy we

612  
00:25:21,100 --> 00:25:18,590  
have a weird sense of humor but that

613  
00:25:24,419 --> 00:25:21,110

person doesn't live there so after I

614

00:25:28,450 --> 00:25:24,429

started bringing in native scientists

615

00:25:32,500 --> 00:25:28,460

we asked him again in a one-year and we

616

00:25:34,810 --> 00:25:32,510

saw a change now and so keep in mind 70%

617

00:25:37,600 --> 00:25:34,820

of our students or female and none of

618

00:25:41,560 --> 00:25:37,610

them identified as a scientist in the

619

00:25:44,590 --> 00:25:41,570

first three years now we have female we

620

00:25:46,030 --> 00:25:44,600

have native respect Yas dung is one of

621

00:25:47,409 --> 00:25:46,040

our core cultural values we teach our

622

00:25:48,909 --> 00:25:47,419

students and we teach the teachers to

623

00:25:50,549 --> 00:25:48,919

say that too so when a kid acts up like

624

00:25:54,419 --> 00:25:50,559

you're not acting with your yacht dung

625

00:25:56,560 --> 00:25:54,429

they start behaving because they know

626

00:25:57,970 --> 00:25:56,570

but the interesting thing and you know

627

00:26:01,480 --> 00:25:57,980

in a word cloud the bigger the word the

628

00:26:07,320 --> 00:26:01,490

more it said the smaller the word but

629

00:26:11,620 --> 00:26:07,330

the cool thing is curly hair short tall

630

00:26:14,049 --> 00:26:11,630

that is a student describing themselves as

631

00:26:18,220 --> 00:26:14,059

a scientist there's only two students

632

00:26:20,890 --> 00:26:18,230

with curly hair that was amazing to me

633

00:26:22,870 --> 00:26:20,900

to see they expanded their definition by

634

00:26:24,789 --> 00:26:22,880

19 words but now they're saying I'm a

635

00:26:27,760 --> 00:26:24,799

scientist the girls are saying I can be

636

00:26:29,799 --> 00:26:27,770

a scientist that was amazing and

637

00:26:30,789 --> 00:26:29,809

profound shift in what they thought they

638

00:26:31,870 --> 00:26:30,799

could be in what they could do with

639

00:26:34,390 --> 00:26:31,880

their life

640

00:26:37,900 --> 00:26:34,400

the other changes we saw and so I took

641

00:26:40,000 --> 00:26:37,910

in the red is my cohort of students from

642

00:26:42,730 --> 00:26:40,010

the last ten years I know everybody in

643

00:26:45,430 --> 00:26:42,740

town so I mapped out the cohort ahead of

644

00:26:47,590 --> 00:26:45,440

them and what we saw as 19% went to

645

00:26:49,360 --> 00:26:47,600

college 5% two degree completion

646

00:26:51,549 --> 00:26:49,370

right now we have 60 to 68 percent

647

00:26:53,049 --> 00:26:51,559

attending college or trade school to

648

00:26:53,980 --> 00:26:53,059

just graduate with an associate's degree

649

00:26:57,310 --> 00:26:53,990

and they're going back to get their

650

00:26:58,539 --> 00:26:57,320

bachelor's we saw a shift and a lot of

651  
00:27:00,460 --> 00:26:58,549  
the girls were having children

652  
00:27:01,330 --> 00:27:00,470  
immediately in their senior year or

653  
00:27:03,880 --> 00:27:01,340  
right after high school

654  
00:27:07,570 --> 00:27:03,890  
that is dropped by half because they're

655  
00:27:08,590 --> 00:27:07,580  
going to college to me another one of

656  
00:27:12,940 --> 00:27:08,600  
the most important things is the

657  
00:27:17,080 --> 00:27:12,950  
addictive behavior alcoholism drug

658  
00:27:18,580 --> 00:27:17,090  
addiction went down by 65% and that is a

659  
00:27:21,370 --> 00:27:18,590  
decrease that leads to a decrease in

660  
00:27:24,460 --> 00:27:21,380  
suicide as well and so when we saw this

661  
00:27:26,860 --> 00:27:24,470  
shift in ideology of I have a value for

662  
00:27:28,960 --> 00:27:26,870  
myself now I can be something I'm not

663  
00:27:30,100 --> 00:27:28,970

stuck here somebody's telling me I can

664

00:27:32,110 --> 00:27:30,110

do something that I never thought I

665

00:27:37,600 --> 00:27:32,120

could do that's the first time a lot of

666

00:27:40,200 --> 00:27:37,610

them have told that so the canoes

667

00:27:42,549 --> 00:27:40,210

getting a little bit more in focus here

668

00:27:47,620 --> 00:27:42,559

so as I noticed my students going to

669

00:27:51,149 --> 00:27:47,630

school I'm out in academia it's a party

670

00:27:52,779 --> 00:27:51,159

right when you're a grad student postdoc

671

00:27:54,610 --> 00:27:52,789

especially when you're trying to run

672

00:27:59,909 --> 00:27:54,620

your own native education program and

673

00:28:03,430 --> 00:27:59,919

your PI does not want you doing that so

674

00:28:05,380 --> 00:28:03,440

there were instances where I published

675

00:28:06,700 --> 00:28:05,390

my first paper in native education and

676

00:28:08,549 --> 00:28:06,710

my P I threw it across the table and

677

00:28:10,240 --> 00:28:08,559

said I don't care this doesn't matter

678

00:28:12,250 --> 00:28:10,250

chapter seven of your dissertation

679

00:28:16,570 --> 00:28:12,260

doesn't matter I don't care just put

680

00:28:20,590 --> 00:28:16,580

this on the grant we don't care to me

681

00:28:22,090 --> 00:28:20,600

that was horrifying and I realized that

682

00:28:25,779 --> 00:28:22,100

we have to make an institutional change

683

00:28:28,570 --> 00:28:25,789

in academia an industry and especially

684

00:28:29,919 --> 00:28:28,580

at funding agencies because that is

685

00:28:32,350 --> 00:28:29,929

where the money starts and that drives

686

00:28:35,350 --> 00:28:32,360

policy when you give money

687

00:28:37,029 --> 00:28:35,360

it drives policy and I don't want to

688

00:28:38,080 --> 00:28:37,039

recruit these students into science and

689

00:28:39,370 --> 00:28:38,090

convince them you should vote go to

690

00:28:42,580 --> 00:28:39,380

school and be a scientist and be told

691

00:28:44,650 --> 00:28:42,590

what you think doesn't matter the way

692

00:28:48,830 --> 00:28:44,660

you see the world doesn't matter

693

00:28:50,630 --> 00:28:48,840

because would we've had what I say is if

694

00:28:52,850 --> 00:28:50,640

you mentor isn't serving you find a new

695

00:28:54,500 --> 00:28:52,860

mentor it's easier said than done I've

696

00:28:57,050 --> 00:28:54,510

had it happen over and over it's hard to

697

00:28:59,510 --> 00:28:57,060

do because you feel like you were if you

698

00:29:02,120 --> 00:28:59,520

leave and move to a new mentor you're

699

00:29:03,940 --> 00:29:02,130

gonna be tainted or talked about or

700

00:29:06,170 --> 00:29:03,950

you're gonna be considered a problem

701

00:29:08,840 --> 00:29:06,180

luckily for me that doesn't bother me

702

00:29:11,600 --> 00:29:08,850

I'm fine with that but students are not

703

00:29:13,070 --> 00:29:11,610

okay with that it is a very difficult

704

00:29:16,310 --> 00:29:13,080

thing to do there's a power dynamic

705

00:29:20,740 --> 00:29:16,320

right students an early career there's a

706

00:29:23,030 --> 00:29:20,750

power dynamic how dare you say something

707

00:29:25,940 --> 00:29:23,040

when I'm the PI and you're just a

708

00:29:28,250 --> 00:29:25,950

student how dare you say something and

709

00:29:29,960 --> 00:29:28,260

then we we're in the position of saying

710

00:29:32,570 --> 00:29:29,970

well now I have to represent my

711

00:29:38,000 --> 00:29:32,580

community what am I gonna do what am I

712

00:29:39,230 --> 00:29:38,010

gonna do so I what I did we worked on

713

00:29:41,030 --> 00:29:39,240

the culture and language we're having

714

00:29:44,330 --> 00:29:41,040

this shift in our community I started

715

00:29:47,120 --> 00:29:44,340

working in academia we had our first p.i

716

00:29:51,530 --> 00:29:47,130

meeting we run the field institute it is

717

00:29:53,510 --> 00:29:51,540

NSF funded we took 30 PI's last year up

718

00:29:55,520 --> 00:29:53,520

to a Colorado Mountain campus where they

719

00:30:00,590 --> 00:29:55,530

had no Wi-Fi and cell signal and they

720

00:30:02,390 --> 00:30:00,600

were just thrilled but we needed to do

721

00:30:07,630 --> 00:30:02,400

that because we thought it was four days

722

00:30:11,890 --> 00:30:07,640

of bystander training native culture

723

00:30:16,700 --> 00:30:14,690

african-american that was our PI group

724

00:30:19,160 --> 00:30:16,710

and we're talking to people who've never

725

00:30:20,510 --> 00:30:19,170

had to talk about this and I can tell

726

00:30:21,740 --> 00:30:20,520

you after the first night I was really

727

00:30:22,970 --> 00:30:21,750

threatening to get on my suitcase and

728

00:30:25,850 --> 00:30:22,980

roll down that mountain because it

729

00:30:27,860 --> 00:30:25,860

wasn't going well on night one but by

730

00:30:30,560 --> 00:30:27,870

the end of it we had come to a mutual

731

00:30:33,770 --> 00:30:30,570

understanding of what we need to we to

732

00:30:38,540 --> 00:30:33,780

accept who we are we are told who we are

733

00:30:41,750 --> 00:30:38,550

by society right we're told who people

734

00:30:44,360 --> 00:30:41,760

are I've met person after person who

735

00:30:46,220 --> 00:30:44,370

said oh you're just a drunk Indian I

736

00:30:50,240 --> 00:30:46,230

don't like native people because they're

737

00:30:54,419 --> 00:30:50,250

drunk I don't drink

738

00:30:56,100 --> 00:30:54,429

but that's who we're told we are and we

739

00:30:57,659 --> 00:30:56,110

have to change that when we're from

740

00:30:59,220 --> 00:30:57,669

diverse backgrounds we are told who we

741

00:31:01,320 --> 00:30:59,230

are and you're told who we are and you

742

00:31:03,000 --> 00:31:01,330

don't see us for who we are and we had

743

00:31:05,270 --> 00:31:03,010

to sit there and explain that to people

744

00:31:07,430 --> 00:31:05,280

who've never really thought about it

745

00:31:09,870 --> 00:31:07,440

that's not who she is

746

00:31:10,799 --> 00:31:09,880

we have hyper-sexualization of Native

747

00:31:12,360 --> 00:31:10,809

women with costumes

748

00:31:14,280 --> 00:31:12,370

we're mascots which make us not real

749

00:31:17,039 --> 00:31:14,290

people we're cartoons

750

00:31:17,760 --> 00:31:17,049

we're unicorns been called a unicorn

751

00:31:21,440 --> 00:31:17,770

many times

752

00:31:24,210 --> 00:31:21,450

oh you're Native scientists it happens

753

00:31:25,710 --> 00:31:24,220

we have to change that idea and so we we

754

00:31:29,190 --> 00:31:25,720

do a workshop with that is we went

755

00:31:30,470 --> 00:31:29,200

really great and we're gonna do two more

756

00:31:33,659 --> 00:31:30,480

this year

757

00:31:36,600 --> 00:31:33,669

institutional foundational change so I

758

00:31:39,840 --> 00:31:36,610

went to NSF in my fellowship because I

759

00:31:41,520 --> 00:31:39,850

wanted to see what was it wasn't getting

760

00:31:43,470 --> 00:31:41,530

funded and what was the justification

761

00:31:44,610 --> 00:31:43,480

what was the idea what was the thinking

762

00:31:46,440 --> 00:31:44,620

what was the process of what was

763

00:31:49,650 --> 00:31:46,450

happening you're when I was in education

764

00:31:52,140 --> 00:31:49,660

you're - I'm in Geoscience to get the

765

00:31:54,180 --> 00:31:52,150

education and in science ideas there's

766

00:31:57,150 --> 00:31:54,190

different cultures again in education in

767

00:32:00,720 --> 00:31:57,160

Geoscience and I sat and listened for

768

00:32:03,390 --> 00:32:00,730

one year and decided to start doing

769

00:32:06,090 --> 00:32:03,400

workshops because people act with good

770

00:32:09,870 --> 00:32:06,100

intentions but it's not always the right

771

00:32:12,570 --> 00:32:09,880

thing to do and it's very hard to tell

772

00:32:15,210 --> 00:32:12,580

someone thank you for doing that but

773

00:32:18,690 --> 00:32:15,220

please stop just you've got to find the

774

00:32:20,100 --> 00:32:18,700

right way of doing that right so I'm

775

00:32:25,169 --> 00:32:20,110

going to end this canoe journey talking

776

00:32:29,970 --> 00:32:25,179

about how we did that identify the need

777

00:32:32,280 --> 00:32:29,980

I needed to tell program officers who we

778

00:32:35,039 --> 00:32:32,290

were because when I came in and it still

779

00:32:36,870 --> 00:32:35,049

happens if someone gets a proposal

780

00:32:38,669 --> 00:32:36,880

focused on indigenous communities I'm

781

00:32:41,549 --> 00:32:38,679

called right away and I'm asked to

782

00:32:44,100 --> 00:32:41,559

advise I don't know every tribe it's

783

00:32:46,610 --> 00:32:44,110

really it's very like oh okay it happens

784

00:32:49,110 --> 00:32:46,620

because they don't know anybody else

785

00:32:51,090 --> 00:32:49,120

identify the need and the need was for

786

00:32:55,110 --> 00:32:51,100

training on how to evaluate indigenous

787

00:33:00,100 --> 00:32:57,850

learn the culture what was the culture

788

00:33:01,899 --> 00:33:00,110

at NSF what was the culture each

789

00:33:04,509 --> 00:33:01,909

Directorate at NSF that asked me to help

790

00:33:06,159 --> 00:33:04,519

them how do I approach these people who

791

00:33:08,019 --> 00:33:06,169

have been doing their job 25 and 30

792

00:33:09,879 --> 00:33:08,029

years and saying I think we can do this

793

00:33:11,440 --> 00:33:09,889

another way because I don't want to

794

00:33:14,379 --> 00:33:11,450

offend them they're trying to do the

795

00:33:15,999 --> 00:33:14,389

right thing but they've never engaged

796

00:33:17,649 --> 00:33:16,009

with a native person to say you know

797

00:33:19,419 --> 00:33:17,659

this is what native Indian country

798

00:33:23,440 --> 00:33:19,429

thinks of this how can we fix this

799

00:33:26,379 --> 00:33:23,450

together develop a plan on how you're

800

00:33:29,109 --> 00:33:26,389

going to do that what are you going to

801  
00:33:31,539 --> 00:33:29,119  
do a workshop one-on-one discussion

802  
00:33:35,190 --> 00:33:31,549  
discussion groups internal white paper

803  
00:33:40,119 --> 00:33:35,200  
what are you going to do and be brave

804  
00:33:42,879 --> 00:33:40,129  
it's not easy it's not easy what I say

805  
00:33:44,710 --> 00:33:42,889  
is a I'm the only Haida in SF and they

806  
00:33:46,180 --> 00:33:44,720  
all know because I'd run they hear me

807  
00:33:48,669 --> 00:33:46,190  
drumming down the hall they all know I'm

808  
00:33:51,489 --> 00:33:48,679  
coming but every tribes not like that

809  
00:33:54,249 --> 00:33:51,499  
I'm from a matriarchal tribe my auntie

810  
00:33:56,409 --> 00:33:54,259  
always said don't ever look down no

811  
00:33:57,940 --> 00:33:56,419  
matter what you don't ever look down you

812  
00:34:00,399 --> 00:33:57,950  
can cry when you get home but don't you

813  
00:34:03,159 --> 00:34:00,409

look down and that's how I operate and

814

00:34:05,799 --> 00:34:03,169

when I first went to NSF some of the

815

00:34:07,899 --> 00:34:05,809

most shockingly racist things were said

816

00:34:09,550 --> 00:34:07,909

to me and I had to sit there and listen

817

00:34:13,419 --> 00:34:09,560

to it I was told I was an uneducated

818

00:34:15,190 --> 00:34:13,429

native I had to sit there and listen to

819

00:34:17,550 --> 00:34:15,200

that and not say anything and not react

820

00:34:20,740 --> 00:34:17,560

because when we react what do you see

821

00:34:23,319 --> 00:34:20,750

you see how I act you don't learn the

822

00:34:25,540 --> 00:34:23,329

lesson when we react you see the actions

823

00:34:29,710 --> 00:34:25,550

of the person who's hurt but you don't

824

00:34:31,569 --> 00:34:29,720

learn that I did something to do this be

825

00:34:33,460 --> 00:34:31,579

brave be brave enough to say something

826

00:34:38,950 --> 00:34:33,470

and that's when you find your voice

827

00:34:40,300 --> 00:34:38,960

a lot of peak up I understand that and

828

00:34:42,970 --> 00:34:40,310

when we're working across discipline

829

00:34:46,210 --> 00:34:42,980

it's hard to have those conversations as

830

00:34:47,649 --> 00:34:46,220

to why one discipline or the other is

831

00:34:49,480 --> 00:34:47,659

right or wrong or how we can work

832

00:34:54,069 --> 00:34:49,490

together or not it's hard for diversity

833

00:34:56,520 --> 00:34:54,079

as well facilitate change in the way

834

00:34:58,660 --> 00:34:56,530

that you are comfortable doing it

835

00:35:02,140 --> 00:34:58,670

because if you're not comfortable doing

836

00:35:03,970 --> 00:35:02,150

it you're gonna stress out and you're

837

00:35:05,170 --> 00:35:03,980

gonna stumble and nobody's gonna listen

838

00:35:07,240 --> 00:35:05,180

to you you got to think about how you're

839

00:35:07,940 --> 00:35:07,250

going to do it and facilitate change

840

00:35:08,870 --> 00:35:07,950

however

841

00:35:10,550 --> 00:35:08,880

best for you because you're gonna be

842

00:35:11,630 --> 00:35:10,560

most effective right when you're doing

843

00:35:13,640 --> 00:35:11,640

your science if you know what you're

844

00:35:16,450 --> 00:35:13,650

doing you're effective you're not gonna

845

00:35:19,190 --> 00:35:16,460

just go do a technique you don't know

846

00:35:21,050 --> 00:35:19,200

sometimes you might need just to see but

847

00:35:22,730 --> 00:35:21,060

most the time you're going to do

848

00:35:25,000 --> 00:35:22,740

something to facilitate change in a

849

00:35:28,190 --> 00:35:25,010

response and a reason an action and

850

00:35:30,470 --> 00:35:28,200

finally create opportunity create

851  
00:35:32,810 --> 00:35:30,480  
opportunity for change and we could do

852  
00:35:35,900 --> 00:35:32,820  
this in a positive way where we change

853  
00:35:38,390 --> 00:35:35,910  
the disciplines we change how we

854  
00:35:40,760 --> 00:35:38,400  
interact with each other we change how

855  
00:35:45,800 --> 00:35:40,770  
we understand the world together and how

856  
00:35:48,620 --> 00:35:45,810  
we envision the world being and finally

857  
00:35:50,270 --> 00:35:48,630  
here's where we make friends guys I'm

858  
00:35:57,260 --> 00:35:50,280  
gonna ask you to stand some of your

859  
00:35:59,380 --> 00:35:57,270  
spread out but stand oh and if you can

860  
00:36:06,170 --> 00:35:59,390  
touch the person's hand next to you

861  
00:36:09,260 --> 00:36:06,180  
is your network these are your

862  
00:36:12,349 --> 00:36:09,270  
colleagues these are your people what

863  
00:36:13,910 --> 00:36:12,359

happens up here will move through that

864

00:36:16,150 --> 00:36:13,920

network and affect the person at the

865

00:36:19,089 --> 00:36:16,160

back it takes time but it will get there

866

00:36:21,109 --> 00:36:19,099

do you want the one or do dult quaggan

867

00:36:23,329 --> 00:36:21,119

everything is related and we need each

868

00:36:24,980 --> 00:36:23,339

other to survive we need other

869

00:36:27,680 --> 00:36:24,990

disciplines to move our science forward

870

00:36:31,370 --> 00:36:27,690

and we needed the human diversity to see

871

00:36:36,440 --> 00:36:31,380

the world in a different way okay you

872

00:36:39,260 --> 00:36:36,450

can quit making friends Howard Lanka

873

00:36:40,339 --> 00:36:39,270

loggin Insung thank you very much for

874

00:36:41,180 --> 00:36:40,349

listening you have any questions

875

00:36:44,420 --> 00:36:41,190

actually I were going to quickly

876  
00:36:47,569 --> 00:36:44,430  
acknowledge the two amazing artists

877  
00:36:48,290 --> 00:36:47,579  
Beth lepen say is at Michigan State

878  
00:36:50,930 --> 00:36:48,300  
University

879  
00:36:52,540 --> 00:36:50,940  
she Dell the space canoe images and one

880  
00:36:54,170 --> 00:36:52,550  
of my favorite artists in the world

881  
00:36:56,450 --> 00:36:54,180  
because she's my daughter

882  
00:36:59,030 --> 00:36:56,460  
is Lauren Smythe and she did all the

883  
00:37:00,990 --> 00:36:59,040  
height of art how would the math

884  
00:37:11,890 --> 00:37:01,000  
collabing thank you

885  
00:37:15,860 --> 00:37:11,900  
[Applause]

886  
00:37:17,750 --> 00:37:15,870  
thank you so much Wendy so the this talk

887  
00:37:20,000 --> 00:37:17,760  
is now open for questions and there are

888  
00:37:23,740 --> 00:37:20,010

microphones there for microphones in the

889

00:37:30,430 --> 00:37:23,750

room so please

890

00:37:32,750 --> 00:37:30,440

should I ask you yes okay right here

891

00:37:36,050 --> 00:37:32,760

hello I'm Anthony Chen

892

00:37:39,680 --> 00:37:36,060

I appreciate your example of a weaving

893

00:37:44,300 --> 00:37:39,690

of the roots wasn't it to introduce pH

894

00:37:47,870 --> 00:37:44,310

acidity I was wondering how do you

895

00:37:52,400 --> 00:37:47,880

integrate or bridge creation narratives

896

00:37:55,790 --> 00:37:52,410

which may be emotive conscious intention

897

00:37:59,510 --> 00:37:55,800

base with a physicalists paradigm yes

898

00:38:01,250 --> 00:37:59,520

so creation so we did that was so

899

00:38:02,180 --> 00:38:01,260

interesting you ask that right off so we

900

00:38:03,260 --> 00:38:02,190

started writing the curriculum when I

901  
00:38:07,250 --> 00:38:03,270  
was at the Center for evolution in

902  
00:38:10,580 --> 00:38:07,260  
action and in my mind we use our

903  
00:38:12,440 --> 00:38:10,590  
creation story and one of our people one

904  
00:38:14,450 --> 00:38:12,450  
of our people freaked out because we're

905  
00:38:17,870 --> 00:38:14,460  
talking about our creation story not

906  
00:38:21,140 --> 00:38:17,880  
creationism as in religion so we use our

907  
00:38:23,000 --> 00:38:21,150  
vision our story of what creation is and

908  
00:38:24,680 --> 00:38:23,010  
then we started tying that into

909  
00:38:27,410 --> 00:38:24,690  
evolution because the story talks about

910  
00:38:29,270 --> 00:38:27,420  
Raven opening a clam and these pitiful

911  
00:38:32,720 --> 00:38:29,280  
white clear translucent things come out

912  
00:38:34,610 --> 00:38:32,730  
and bear gives his first so we have hair

913  
00:38:37,160 --> 00:38:34,620

Eagle gives his claw so we have

914

00:38:40,820 --> 00:38:37,170

fingernails and still gives his flesh so

915

00:38:43,070 --> 00:38:40,830

we can eat and our duty is to take care

916

00:38:45,050 --> 00:38:43,080

of the land and the gland will take care

917

00:38:46,460 --> 00:38:45,060

of us and so we started teaching that in

918

00:38:48,500 --> 00:38:46,470

evolution talking about divergent

919

00:38:50,990 --> 00:38:48,510

evolution because when you look at the

920

00:38:52,640 --> 00:38:51,000

beings changing but we don't tie it into

921

00:38:54,650 --> 00:38:52,650

creationism and religion is that what

922

00:38:57,380 --> 00:38:54,660

you're asking we don't talk about that

923

00:38:59,300 --> 00:38:57,390

we're talking about creation from our

924

00:39:01,250 --> 00:38:59,310

perspective because they had not dawned

925

00:39:02,960 --> 00:39:01,260

on me at the time to do that but when we

926  
00:39:04,820 --> 00:39:02,970  
do the lesson plan we do talk about that

927  
00:39:06,620 --> 00:39:04,830  
we do it from the perspective of our

928  
00:39:10,680 --> 00:39:06,630  
version of creation does that answer

929  
00:39:18,999 --> 00:39:15,099  
yeah um it strikes me when I listen to

930  
00:39:21,309 --> 00:39:19,009  
you that what you had was the benefit of

931  
00:39:23,529 --> 00:39:21,319  
time because you really were working in

932  
00:39:26,200 --> 00:39:23,539  
the community with the children what

933  
00:39:28,870 --> 00:39:26,210  
would you recommend for someone who does

934  
00:39:33,039 --> 00:39:28,880  
volunteer work and reaches out going

935  
00:39:34,930 --> 00:39:33,049  
into communities obviously I'm white go

936  
00:39:38,529 --> 00:39:34,940  
into communities where children are poor

937  
00:39:40,660 --> 00:39:38,539  
and of different ethnic groups are there

938  
00:39:43,180 --> 00:39:40,670

things that you can suggest where you're

939

00:39:45,640 --> 00:39:43,190

going into they're established schools

940

00:39:48,640 --> 00:39:45,650

yeah it should be more effective yeah

941

00:39:50,769 --> 00:39:48,650

one is have an ally there's always

942

00:39:54,940 --> 00:39:50,779

there's a contact that anchors you into

943

00:39:57,339 --> 00:39:54,950

that environment number one number like

944

00:39:59,380 --> 00:39:57,349

I said it was my own community took two

945

00:40:02,109 --> 00:39:59,390

years I had a friend someone I grew up

946

00:40:03,819 --> 00:40:02,119

with who was the mayor and the

947

00:40:07,059 --> 00:40:03,829

environmental planner small community he

948

00:40:08,710 --> 00:40:07,069

does both he hosted us there until

949

00:40:10,539 --> 00:40:08,720

people were more comfortable they

950

00:40:12,579 --> 00:40:10,549

remembered me from being a kid but I was

951  
00:40:18,239 --> 00:40:12,589  
a brat and they're like oh why she back

952  
00:40:21,400 --> 00:40:18,249  
but what is she gonna do now yeah

953  
00:40:22,479 --> 00:40:21,410  
but having that Ally on the ground that

954  
00:40:25,539 --> 00:40:22,489  
you can work with and then the other

955  
00:40:28,210 --> 00:40:25,549  
thing I would say patience it takes time

956  
00:40:29,499 --> 00:40:28,220  
to build those relationships there's an

957  
00:40:30,700 --> 00:40:29,509  
excerpt of one of the first questions I

958  
00:40:32,529 --> 00:40:30,710  
was asked is how much sorry are you

959  
00:40:33,819 --> 00:40:32,539  
trying to do this what are you getting

960  
00:40:36,039 --> 00:40:33,829  
paid to be here and are you gonna leave

961  
00:40:39,460 --> 00:40:36,049  
when the money runs out that is always

962  
00:40:40,739 --> 00:40:39,470  
in the mind of these groups what what

963  
00:40:44,979 --> 00:40:40,749

are you gonna do what are you here for

964

00:40:48,029 --> 00:40:44,989

so patience and persistence so the

965

00:40:51,400 --> 00:40:48,039

anchor person to host you and facilitate

966

00:40:52,690 --> 00:40:51,410

patience and persistence and active

967

00:40:56,890 --> 00:40:52,700

learning again active learning for

968

00:40:59,470 --> 00:40:56,900

diversity initiatives how do you handle

969

00:41:01,599 --> 00:40:59,480

the language problem you have a visitor

970

00:41:04,630 --> 00:41:01,609

come in who's a specialist in some

971

00:41:08,259 --> 00:41:04,640

special scientific area they don't know

972

00:41:10,539 --> 00:41:08,269

the native language mm-hmm so with the

973

00:41:12,160 --> 00:41:10,549

language what we did is so in the last

974

00:41:15,200 --> 00:41:12,170

five years we've lost all our elders who

975

00:41:17,510 --> 00:41:15,210

spoke fluent Haida because they're 1991

976

00:41:21,049 --> 00:41:17,520

a hundred years old we had one young man

977

00:41:23,210 --> 00:41:21,059

who took the time he quit college and he

978

00:41:25,700 --> 00:41:23,220

lived in Heidelberg with his Janu and

979

00:41:28,880 --> 00:41:25,710

father to learn hide up so he's fluent

980

00:41:30,650 --> 00:41:28,890

now we have two people who Simon Fraser

981

00:41:33,079 --> 00:41:30,660

University in Vancouver Canada has a

982

00:41:35,540 --> 00:41:33,089

northern Haida dialect for our dialect

983

00:41:37,160 --> 00:41:35,550

they got a master's degree and so now

984

00:41:39,530 --> 00:41:37,170

they are in the community teaching and

985

00:41:41,510 --> 00:41:39,540

so we're doing it through the immersion

986

00:41:43,250 --> 00:41:41,520

school but the other thing we did is we

987

00:41:45,559 --> 00:41:43,260

made a glossary of science terms when we

988

00:41:47,270 --> 00:41:45,569

had our elders and we put they wanted

989

00:41:49,010 --> 00:41:47,280

two or three two or three trying to

990

00:41:51,740 --> 00:41:49,020

explain a computer two or three words

991

00:41:54,349 --> 00:41:51,750

they wanted a simple definition so that

992

00:41:57,109 --> 00:41:54,359

they could build words and we were only

993

00:41:59,720 --> 00:41:57,119

doing it to try to add that to a

994

00:42:02,150 --> 00:41:59,730

glossary but what happened was the young

995

00:42:04,700 --> 00:42:02,160

man who's now teaching Lahaina he

996

00:42:08,240 --> 00:42:04,710

learned how to build words so now he can

997

00:42:10,130 --> 00:42:08,250

facilitate adding science terms so we're

998

00:42:11,210 --> 00:42:10,140

we do Haida language classes I'm on the

999

00:42:13,430 --> 00:42:11,220

board of directors for our language

1000

00:42:15,799 --> 00:42:13,440

reclamation for community we have adult

1001  
00:42:17,150 --> 00:42:15,809  
learning we have children intermediate

1002  
00:42:20,599 --> 00:42:17,160  
learning we have the preschool learners

1003  
00:42:23,750 --> 00:42:20,609  
and a very interesting thing in

1004  
00:42:25,640 --> 00:42:23,760  
September when we started hosted and

1005  
00:42:29,839 --> 00:42:25,650  
opened this hunting eye immersion

1006  
00:42:32,750 --> 00:42:29,849  
program 17 year olds did not want that

1007  
00:42:35,539 --> 00:42:32,760  
program they were not allowed to speak

1008  
00:42:37,789 --> 00:42:35,549  
hidden they were beaten for speaking

1009  
00:42:39,559 --> 00:42:37,799  
Haida they were punished for speaking up

1010  
00:42:42,200 --> 00:42:39,569  
so it was a fear that they didn't know

1011  
00:42:43,789 --> 00:42:42,210  
they had but now it's changing and we're

1012  
00:42:46,039 --> 00:42:43,799  
trying to continue that change and with

1013  
00:42:47,660 --> 00:42:46,049

the babies speaking Hina noun there's

1014

00:42:49,010 --> 00:42:47,670

not a lot of choice there they're

1015

00:42:51,319 --> 00:42:49,020

learning it and they're getting more

1016

00:42:52,970 --> 00:42:51,329

comfortable with it but it was a slow

1017

00:42:57,589 --> 00:42:52,980

process and it takes time that's a hard

1018

00:43:00,760 --> 00:42:57,599

language to speak and it's it takes time

1019

00:43:04,069 --> 00:43:00,770

it's very it's all in here yeah it hurts

1020

00:43:07,010 --> 00:43:04,079

it hurts to speak it but we're just

1021

00:43:08,480 --> 00:43:07,020

trying day by day offering classes and

1022

00:43:10,130 --> 00:43:08,490

encouraging and one of the other things

1023

00:43:11,780 --> 00:43:10,140

I did is a lot of our youth were

1024

00:43:13,089 --> 00:43:11,790

embarrassed to speak Haida because

1025

00:43:15,490 --> 00:43:13,099

they're only in the community together

1026

00:43:20,900 --> 00:43:15,500

so when I bring colleagues that are

1027

00:43:23,390 --> 00:43:20,910

Dannette pueblos Anishinaabe they speak

1028

00:43:25,040 --> 00:43:23,400

their language but they're in there

1029

00:43:27,470 --> 00:43:25,050

they're connected they're not

1030

00:43:28,610 --> 00:43:27,480

Rhode Island in Alaska there you know

1031

00:43:29,960 --> 00:43:28,620

there on the continent United States

1032

00:43:31,730 --> 00:43:29,970

they know people speak their language in

1033

00:43:33,620 --> 00:43:31,740

their community in English outside of it

1034

00:43:34,610 --> 00:43:33,630

so when I bring these colleagues up I

1035

00:43:36,770 --> 00:43:34,620

ask them to introduce themselves

1036

00:43:38,630 --> 00:43:36,780

initially in their language and that

1037

00:43:44,000 --> 00:43:38,640

made a difference to for students being

1038

00:43:45,980 --> 00:43:44,010

proud and not ashamed to speak hi-de-hi

1039

00:43:49,130 --> 00:43:45,990

when do some early on also from Michigan

1040

00:43:52,250 --> 00:43:49,140

State so go green I had a question if

1041

00:43:54,380 --> 00:43:52,260

you were kind of go 50,000 foot view

1042

00:43:56,090 --> 00:43:54,390

where the u.s. is obviously a very

1043

00:43:59,060 --> 00:43:56,100

multicultural society and science

1044

00:44:01,400 --> 00:43:59,070

discourse is very needed nowadays so if

1045

00:44:02,810 --> 00:44:01,410

we were to kind of examine some of those

1046

00:44:05,080 --> 00:44:02,820

lessons that you've learned what would

1047

00:44:07,100 --> 00:44:05,090

you draw on as far as solutions for

1048

00:44:09,890 --> 00:44:07,110

communicating some of these same things

1049

00:44:11,480 --> 00:44:09,900

to a society that may have the same

1050

00:44:13,070 --> 00:44:11,490

language but very different

1051

00:44:15,230 --> 00:44:13,080

philosophical differences or very

1052

00:44:17,000 --> 00:44:15,240

different vocabularies in terms of

1053

00:44:19,070 --> 00:44:17,010

discussing some of these scientific

1054

00:44:20,320 --> 00:44:19,080

problems or philosophical problems or

1055

00:44:23,330 --> 00:44:20,330

even when you have clashes between

1056

00:44:24,800 --> 00:44:23,340

creationism and non creationism how do

1057

00:44:25,610 --> 00:44:24,810

you approach that tactfully and

1058

00:44:27,410 --> 00:44:25,620

compassionately

1059

00:44:30,380 --> 00:44:27,420

so you mean cross discipline discussions

1060

00:44:34,610 --> 00:44:30,390

yeah yeah oh boy okay be brave and find

1061

00:44:36,530 --> 00:44:34,620

your voice no you know the you approach

1062

00:44:38,900 --> 00:44:36,540

it the same way I would approach it the

1063

00:44:40,910 --> 00:44:38,910

same way of you know we have to

1064

00:44:44,000 --> 00:44:40,920

acknowledge in academia that each

1065

00:44:46,100 --> 00:44:44,010

discipline has a language it has a

1066

00:44:48,950 --> 00:44:46,110

culture and there's a there's a way of

1067

00:44:51,800 --> 00:44:48,960

thinking about the world and sometimes

1068

00:44:53,840 --> 00:44:51,810

that's really hard to express across

1069

00:44:55,550 --> 00:44:53,850

discipline but we have to do it

1070

00:44:58,040 --> 00:44:55,560

especially in interdisciplinary Sciences

1071

00:44:59,300 --> 00:44:58,050

with Geoscience and astrobiology because

1072

00:45:00,560 --> 00:44:59,310

we can't all just look at one thing

1073

00:45:01,910 --> 00:45:00,570

because we're not going to find anything

1074

00:45:07,340 --> 00:45:01,920

if we do we're gonna stare at the same

1075

00:45:09,620 --> 00:45:07,350

dot right so finding a way I find that

1076  
00:45:12,860 --> 00:45:09,630  
advocate again to have that change and

1077  
00:45:14,450 --> 00:45:12,870  
talk about it publicly because we if we

1078  
00:45:15,680 --> 00:45:14,460  
don't talk about it and we don't bring

1079  
00:45:17,720 --> 00:45:15,690  
attention to it we're not gonna

1080  
00:45:19,940 --> 00:45:17,730  
acknowledge it and change it I think

1081  
00:45:23,000 --> 00:45:19,950  
there was a talk I went to yesterday the

1082  
00:45:24,530 --> 00:45:23,010  
diversity talk where what do we do when

1083  
00:45:26,870 --> 00:45:24,540  
we're in an uncomfortable situation we

1084  
00:45:28,310 --> 00:45:26,880  
laugh or walk away uh-huh okay I don't

1085  
00:45:29,090 --> 00:45:28,320  
know what you mean and walk away we have

1086  
00:45:30,710 --> 00:45:29,100  
to stay there and have those

1087  
00:45:33,800 --> 00:45:30,720  
conversations and we can do that

1088  
00:45:35,450 --> 00:45:33,810

respectfully and in a respectful way

1089

00:45:38,030 --> 00:45:35,460

with each other

1090

00:45:40,280 --> 00:45:38,040

that's because I've been in departments

1091

00:45:41,750 --> 00:45:40,290

where we were astrobiology group you're

1092

00:45:43,070 --> 00:45:41,760

in a geology department it was a hostile

1093

00:45:45,380 --> 00:45:43,080

environment they did not want

1094

00:45:46,970 --> 00:45:45,390

astrobiology people in that department

1095

00:45:49,610 --> 00:45:46,980

it was a pure science that we were

1096

00:45:51,530 --> 00:45:49,620

tainting that science you have to have

1097

00:45:53,660 --> 00:45:51,540

those discussions and sometimes people

1098

00:45:55,310 --> 00:45:53,670

aren't willing to listen and then you

1099

00:45:56,900 --> 00:45:55,320

just wait you find another ally to work

1100

00:45:58,150 --> 00:45:56,910

with and you can facilitate change

1101  
00:46:00,710 --> 00:45:58,160  
outside your department

1102  
00:46:02,720 --> 00:46:00,720  
that's what I've been able to do in some

1103  
00:46:04,220 --> 00:46:02,730  
instances as well it's not easy

1104  
00:46:05,900 --> 00:46:04,230  
it sounds easy talking about it it's not

1105  
00:46:08,270 --> 00:46:05,910  
easy because you have to go back into

1106  
00:46:09,470 --> 00:46:08,280  
that department every day right and face

1107  
00:46:11,330 --> 00:46:09,480  
those people who do not want to talk

1108  
00:46:13,070 --> 00:46:11,340  
about what you do and they want to stick

1109  
00:46:17,570 --> 00:46:13,080  
with just their language and culture and

1110  
00:46:19,610 --> 00:46:17,580  
not acknowledge this one Kathy Oh first

1111  
00:46:21,170 --> 00:46:19,620  
off I just want to thank you for coming

1112  
00:46:23,150 --> 00:46:21,180  
here and sharing your personal

1113  
00:46:27,110 --> 00:46:23,160

experience from such a vulnerable point

1114

00:46:29,360 --> 00:46:27,120

and secondly you had mentioned during

1115

00:46:31,160 --> 00:46:29,370

your talk that you sometimes come across

1116

00:46:33,560 --> 00:46:31,170

these instances where people who are

1117

00:46:35,120 --> 00:46:33,570

trying to help and are well-meaning do

1118

00:46:36,440 --> 00:46:35,130

things that you really wish they didn't

1119

00:46:38,980 --> 00:46:36,450

do and I was wondering if you could kind

1120

00:46:41,420 --> 00:46:38,990

of speak to some of these common

1121

00:46:43,190 --> 00:46:41,430

problems that you see when well-meaning

1122

00:46:46,610 --> 00:46:43,200

people try to do outreach in communities

1123

00:46:48,320 --> 00:46:46,620

like this yes are you talking about okay

1124

00:46:50,210 --> 00:46:48,330

so I can start up and work my way down

1125

00:46:53,540 --> 00:46:50,220

okay I can do that if I'm off the track

1126

00:46:55,880 --> 00:46:53,550

let me know so first of all so at the

1127

00:46:57,200 --> 00:46:55,890

funding agency and I'll say the funding

1128

00:46:58,130 --> 00:46:57,210

agency I know there's several others I

1129

00:46:59,630 --> 00:46:58,140

can't speak for them

1130

00:47:01,790 --> 00:46:59,640

but we talk they talk about portfolio

1131

00:47:04,220 --> 00:47:01,800

diversity we have this broadening

1132

00:47:07,550 --> 00:47:04,230

participation of agenda initiative

1133

00:47:09,770 --> 00:47:07,560

agenda at NSF so now when diverse

1134

00:47:12,080 --> 00:47:09,780

proposals come in oh I have a native

1135

00:47:14,960 --> 00:47:12,090

proposal I'm gonna fund it if we don't

1136

00:47:16,640 --> 00:47:14,970

know what it's about

1137

00:47:19,400 --> 00:47:16,650

we're just gonna fund it anyway because

1138

00:47:21,530 --> 00:47:19,410

we need that portfolio diversity but we

1139

00:47:24,230 --> 00:47:21,540

can't keep working that way we can't

1140

00:47:25,940 --> 00:47:24,240

keep moving forward that way so ask me

1141

00:47:31,460 --> 00:47:25,950

again because I was on a path and I got

1142

00:47:34,310 --> 00:47:31,470

lost so I guess I was trying to see like

1143

00:47:35,810 --> 00:47:34,320

these things that we do when we do

1144

00:47:37,550 --> 00:47:35,820

outreach that

1145

00:47:39,860 --> 00:47:37,560

yes you really wish we didn't do or we

1146

00:47:42,080 --> 00:47:39,870

did them by different okay sorry yeah so

1147

00:47:44,810 --> 00:47:42,090

we want the diversity but we can't take

1148

00:47:45,920 --> 00:47:44,820

everything we have to learn about it so

1149

00:47:47,900 --> 00:47:45,930

if we're gonna work with the community

1150

00:47:49,760 --> 00:47:47,910

and I speak only for native people I

1151  
00:47:51,590 --> 00:47:49,770  
have colleagues in other areas of

1152  
00:47:53,140 --> 00:47:51,600  
diversity but I can't speak to that

1153  
00:47:55,700 --> 00:47:53,150  
because I don't I don't live that life

1154  
00:47:57,530 --> 00:47:55,710  
they speak it and I can help them and

1155  
00:48:00,050 --> 00:47:57,540  
agree with them but we have to be able

1156  
00:48:02,450 --> 00:48:00,060  
to have those conversations and we have

1157  
00:48:04,100 --> 00:48:02,460  
to be able to be willing to learn we

1158  
00:48:07,040 --> 00:48:04,110  
have to be willing to say you know what

1159  
00:48:08,500 --> 00:48:07,050  
I didn't realize I had this issue with

1160  
00:48:11,600 --> 00:48:08,510  
this community

1161  
00:48:13,520 --> 00:48:11,610  
maybe I should interact differently it

1162  
00:48:14,930 --> 00:48:13,530  
was hard to do we're so busy we don't

1163  
00:48:16,520 --> 00:48:14,940

think about how we're interacting with

1164

00:48:19,220 --> 00:48:16,530

people all we see is that they keep

1165

00:48:22,250 --> 00:48:19,230

walking away right they don't want us to

1166

00:48:24,590 --> 00:48:22,260

work here but why why ask those

1167

00:48:26,900 --> 00:48:24,600

questions is why and what can I do to

1168

00:48:29,180 --> 00:48:26,910

help you because there's a lot of

1169

00:48:30,860 --> 00:48:29,190

working on native people we've been

1170

00:48:32,420 --> 00:48:30,870

worked on over and over again

1171

00:48:35,150 --> 00:48:32,430

we've been worked on and worked on it

1172

00:48:38,240 --> 00:48:35,160

worked on but not with work with people

1173

00:48:40,750 --> 00:48:38,250

and be really sincere about it and it

1174

00:48:43,550 --> 00:48:40,760

takes time to learn and that's okay

1175

00:48:44,990 --> 00:48:43,560

we're gonna make mistakes but we're

1176

00:48:46,100 --> 00:48:45,000

still trying to learn in the open and

1177

00:48:48,920 --> 00:48:46,110

willing to let I'm gonna walk off the

1178

00:48:51,800 --> 00:48:48,930

edge of the stage they open I'll just

1179

00:48:54,740 --> 00:48:51,810

keep rolling be open and willing to

1180

00:48:56,030 --> 00:48:54,750

learn and but also it's it's hard when

1181

00:48:57,890 --> 00:48:56,040

someone says you know you're not doing

1182

00:49:00,080 --> 00:48:57,900

that can we talk about how you're

1183

00:49:01,670 --> 00:49:00,090

engaging this community and you have we

1184

00:49:03,410 --> 00:49:01,680

just can't be offended by it

1185

00:49:04,310 --> 00:49:03,420

because there's different ways of

1186

00:49:07,640 --> 00:49:04,320

interacting with several different

1187

00:49:10,970 --> 00:49:07,650

communities right a community from one

1188

00:49:13,510 --> 00:49:10,980

state one tribe and another tribe have

1189

00:49:18,320 --> 00:49:13,520

totally different ways of interacting

1190

00:49:22,880 --> 00:49:18,330

does that answer yeah um I'm reminded I

1191

00:49:24,530 --> 00:49:22,890

belong to NPR sicom we mostly hang out

1192

00:49:27,080 --> 00:49:24,540

on slack and her people do a lot of

1193

00:49:29,090 --> 00:49:27,090

things and the diversity group

1194

00:49:31,820 --> 00:49:29,100

introduced us there's a book called

1195

00:49:36,350 --> 00:49:31,830

white fragility that sort of makes me

1196

00:49:38,500 --> 00:49:36,360

gag but so I was sorry to hear about NSF

1197

00:49:40,700 --> 00:49:38,510

culture and I wondered if it is changing

1198

00:49:42,620 --> 00:49:40,710

Gooding that's what I hope it's change I

1199

00:49:44,930 --> 00:49:42,630

I don't I I go home and cry one day and

1200

00:49:45,670 --> 00:49:44,940

then I'm back yeah yeah I'm back on the

1201

00:49:47,049 --> 00:49:45,680

drum you know

1202

00:49:48,430 --> 00:49:47,059

and that's why that's why we do the

1203

00:49:51,370 --> 00:49:48,440

workshops though is to bring that out

1204

00:49:55,630 --> 00:49:51,380

and create other program officers that

1205

00:49:57,309 --> 00:49:55,640

can address that thank you yeah it's not

1206

00:49:58,420 --> 00:49:57,319

just one found it's everywhere and we

1207

00:50:02,950 --> 00:49:58,430

just don't think of how we say things

1208

00:50:04,420 --> 00:50:02,960

and how it can be offensive right yeah I

1209

00:50:06,730 --> 00:50:04,430

don't you I love it there it's great

1210

00:50:08,230 --> 00:50:06,740

it's great there it's just we have these

1211

00:50:10,599 --> 00:50:08,240

ingrained cultures within academia

1212

00:50:12,630 --> 00:50:10,609

within departments within institutions

1213

00:50:15,160 --> 00:50:12,640

and foundations that we we're so busy

1214

00:50:17,559 --> 00:50:15,170

going this way we don't look we're

1215

00:50:19,150 --> 00:50:17,569

myopic we look at one thing and we don't

1216

00:50:20,620 --> 00:50:19,160

see everything else that's happening and

1217

00:50:23,819 --> 00:50:20,630

how we're impacting people in

1218

00:50:25,839 --> 00:50:23,829

communities we don't see that and

1219

00:50:28,359 --> 00:50:25,849

bringing that to the attention of people

1220

00:50:30,490 --> 00:50:28,369

is the only way being brave and having a

1221

00:50:33,760 --> 00:50:30,500

voice and saying you know what one of my

1222

00:50:37,990 --> 00:50:33,770

things DC come on they have the Redskins

1223

00:50:41,349 --> 00:50:38,000

and NSF wants to be inclusive of

1224

00:50:43,210 --> 00:50:41,359

everybody when I'm walking around and I

1225

00:50:44,890 --> 00:50:43,220

seen these logos and people's cubicles

1226

00:50:48,430 --> 00:50:44,900

and offices I don't feel like that's a

1227

00:50:50,620 --> 00:50:48,440

welcoming environment because of the

1228

00:50:52,990 --> 00:50:50,630

Hatch Act we can't require people not to

1229

00:50:55,089 --> 00:50:53,000

put that up but what I've asked NSF to

1230

00:50:58,059 --> 00:50:55,099

do is say if you want to be a truly

1231

00:51:01,420 --> 00:50:58,069

inclusive environment ask people to

1232

00:51:03,430 --> 00:51:01,430

please take it down you don't have to

1233

00:51:06,519 --> 00:51:03,440

but please consider what you're showing

1234

00:51:08,859 --> 00:51:06,529

and it's such a normal thing to have

1235

00:51:11,140 --> 00:51:08,869

mascots and costumes

1236

00:51:13,000 --> 00:51:11,150

we're depicted as not real what cartoons

1237

00:51:14,319 --> 00:51:13,010

or this or that we're selling fireworks

1238

00:51:16,870 --> 00:51:14,329

over here and we're drunk over here

1239

00:51:18,849 --> 00:51:16,880

that's not who we are but that's what

1240

00:51:21,069 --> 00:51:18,859

we're that's what you're told we are and

1241

00:51:23,650 --> 00:51:21,079

so it's hard to change that way of

1242

00:51:25,870 --> 00:51:23,660

thinking and I think that addresses what

1243

00:51:27,910 --> 00:51:25,880

your what you were asking as well as how

1244

00:51:29,470 --> 00:51:27,920

are these communities identified and how

1245

00:51:30,579 --> 00:51:29,480

are we interacting with them because we

1246

00:51:32,500 --> 00:51:30,589

interact in the way that we're taught

1247

00:51:33,960 --> 00:51:32,510

and sometimes I don't think about it is

1248

00:51:36,279 --> 00:51:33,970

it's one those things we have to do this

1249

00:51:38,829 --> 00:51:36,289

internal examination what do I think of

1250

00:51:42,370 --> 00:51:38,839

these people and why do I think this but

1251

00:51:43,839 --> 00:51:42,380

it's changing and I think with the first

1252

00:51:45,549 --> 00:51:43,849

workshop I was terrified

1253

00:51:47,140 --> 00:51:45,559

I'm gonna have I had a hundred and one

1254

00:51:51,400 --> 00:51:47,150

program officers sign up to come I only

1255

00:51:52,720 --> 00:51:51,410

expected 20 and I was terrified we're

1256

00:51:54,970 --> 00:51:52,730

talking about tribal policy we're

1257

00:51:56,040 --> 00:51:54,980

talking about sovereignty we're talking

1258

00:51:59,130 --> 00:51:56,050

about you know

1259

00:52:02,460 --> 00:51:59,140

the best example I can give you and that

1260

00:52:04,410 --> 00:52:02,470

I use is if someone in the talking

1261

00:52:06,240 --> 00:52:04,420

pretend you're NSF program officer

1262

00:52:08,310 --> 00:52:06,250

you're a federal employee and I say hey

1263

00:52:09,780 --> 00:52:08,320

I'm from France and I want to come to

1264

00:52:13,350 --> 00:52:09,790

NSF and I want to go through all your

1265

00:52:15,930 --> 00:52:13,360

data and see what you're doing you don't

1266

00:52:16,800 --> 00:52:15,940

have to get me a VM it's coming you

1267

00:52:18,210 --> 00:52:16,810

can't do that

1268

00:52:19,920 --> 00:52:18,220

there's legalities there's ways of

1269

00:52:20,940 --> 00:52:19,930

coming in that's the same working with

1270

00:52:23,609 --> 00:52:20,950

Indian country they are sovereign

1271

00:52:25,320 --> 00:52:23,619

nations and you have to go through the

1272

00:52:28,230 --> 00:52:25,330

right community member cannot grant you

1273

00:52:30,690 --> 00:52:28,240

access to the tribe it has to be a

1274

00:52:32,640 --> 00:52:30,700

tribal leader and the leadership that

1275

00:52:33,930 --> 00:52:32,650

allows you access and that's what we

1276

00:52:35,340 --> 00:52:33,940

were having happen is people were

1277

00:52:37,320 --> 00:52:35,350

getting these million-dollar grants

1278

00:52:38,160 --> 00:52:37,330

showing up at the tribe the tribe was

1279

00:52:39,830 --> 00:52:38,170

like nope

1280

00:52:43,859 --> 00:52:39,840

and tried to have the right to say no

1281

00:52:44,850 --> 00:52:43,869

they have the right to say no and so

1282

00:52:46,710 --> 00:52:44,860

that's one of the things that we talk

1283

00:52:48,030 --> 00:52:46,720

about and work with program officers so

1284

00:52:50,940 --> 00:52:48,040

now they have a CH and then they asked

1285

00:52:52,440 --> 00:52:50,950

for a checklist they went well we have

1286

00:52:53,880 --> 00:52:52,450

to be very careful there's legal terms

1287

00:52:55,859 --> 00:52:53,890

right that we can't use I can't call it

1288

00:52:57,450 --> 00:52:55,869

a guideline because that implies a

1289

00:53:00,150 --> 00:52:57,460

mandate but we can call it a

1290

00:53:01,800 --> 00:53:00,160

recommendation and so we made this very

1291

00:53:04,200 --> 00:53:01,810

broad recommendation of when you get an

1292

00:53:07,010 --> 00:53:04,210

indigenous focused proposal here are a

1293

00:53:09,930 --> 00:53:07,020

few things to consider but again there's

1294

00:53:12,180 --> 00:53:09,940

567 federally recognized tribes and

1295

00:53:14,070 --> 00:53:12,190

several hundred more non readily

1296

00:53:15,660 --> 00:53:14,080

recognized we're not all going to have

1297

00:53:18,480 --> 00:53:15,670

the same protocol but it's a place to

1298

00:53:19,980 --> 00:53:18,490

start and that's all I can ask for is

1299

00:53:21,540 --> 00:53:19,990

within two years I've been able to get

1300

00:53:24,030 --> 00:53:21,550

program officers to say yeah you know

1301  
00:53:25,770 --> 00:53:24,040  
what let's try this another way because

1302  
00:53:27,180 --> 00:53:25,780  
they didn't have to do that they could

1303  
00:53:28,800 --> 00:53:27,190  
have been very angry with me and walked

1304  
00:53:30,420 --> 00:53:28,810  
out of the room but they invited us to

1305  
00:53:31,950 --> 00:53:30,430  
do a second workshop and they asked for

1306  
00:53:34,410 --> 00:53:31,960  
this recommendation because I think

1307  
00:53:36,390 --> 00:53:34,420  
there's a culture shift and a

1308  
00:53:39,720 --> 00:53:36,400  
recognition that we need to do this to

1309  
00:53:46,359 --> 00:53:39,730  
really be truly innovative and impactful

1310  
00:53:52,640 --> 00:53:48,949  
she was sorry I keep feeling like she

1311  
00:53:56,120 --> 00:53:52,650  
was reversed oh sorry hi um I'm Alan

1312  
00:53:57,439 --> 00:53:56,130  
Silas Valdez I'm a graduate student so

1313  
00:53:59,799 --> 00:53:57,449

you mentioned when you were a graduate

1314

00:54:02,120 --> 00:53:59,809

student you were doing all of this work

1315

00:54:04,549 --> 00:54:02,130

not necessarily with your adviser

1316

00:54:08,659 --> 00:54:04,559

approving and I'm finding that a lot of

1317

00:54:11,689 --> 00:54:08,669

the work to make our systems more

1318

00:54:13,669 --> 00:54:11,699

welcoming to diverse populations are

1319

00:54:18,709 --> 00:54:13,679

being done by the people affected by it

1320

00:54:20,839 --> 00:54:18,719

themselves and so that I think leads to

1321

00:54:23,239 --> 00:54:20,849

the retention problem that we're having

1322

00:54:26,269 --> 00:54:23,249

because you have students getting burnt

1323

00:54:28,249 --> 00:54:26,279

out you know all of this but the reason

1324

00:54:31,069 --> 00:54:28,259

I'm bringing this up is because the

1325

00:54:33,799 --> 00:54:31,079

field program that you mentioned were

1326  
00:54:35,959 --> 00:54:33,809  
your training pis sounds like a way to

1327  
00:54:39,739 --> 00:54:35,969  
avoid this if we could have more people

1328  
00:54:41,209 --> 00:54:39,749  
just trained and how to properly support

1329  
00:54:44,659 --> 00:54:41,219  
someone from an underrepresented

1330  
00:54:47,359 --> 00:54:44,669  
background so I'm wondering if you know

1331  
00:54:50,569 --> 00:54:47,369  
of more of these programs where could

1332  
00:54:53,779 --> 00:54:50,579  
one find a program like this I do yeah

1333  
00:54:56,569 --> 00:54:53,789  
so NSF Geoscience came out with the gold

1334  
00:54:57,279 --> 00:54:56,579  
golden and if you google that and I'm

1335  
00:55:04,219 --> 00:54:57,289  
golden

1336  
00:55:06,589 --> 00:55:04,229  
Geoscience Directorate they did in ideas

1337  
00:55:09,140 --> 00:55:06,599  
lab in 2016 and there's five cohorts of

1338  
00:55:11,659 --> 00:55:09,150

us we specifically focus on the field

1339

00:55:14,749 --> 00:55:11,669

component there's early career there's

1340

00:55:16,489 --> 00:55:14,759

graduate there's gatekeepers and so

1341

00:55:19,130 --> 00:55:16,499

we're cohorts of people five to nine

1342

00:55:21,380 --> 00:55:19,140

pies per group that work to do this type

1343

00:55:23,630 --> 00:55:21,390

of work to bring awareness to diversity

1344

00:55:25,189 --> 00:55:23,640

in the field disciplines because we do

1345

00:55:26,839 --> 00:55:25,199

not we don't retain when we have a

1346

00:55:29,329 --> 00:55:26,849

science that there's a field component

1347

00:55:31,069 --> 00:55:29,339

we lose those students we lose them

1348

00:55:32,870 --> 00:55:31,079

particularly we've been addressing the

1349

00:55:34,339 --> 00:55:32,880

sexual assault on women and alcoholism

1350

00:55:38,149 --> 00:55:34,349

in the field alcohol use none of us

1351  
00:55:39,739 --> 00:55:38,159  
alcohol use in the field like that

1352  
00:55:42,019 --> 00:55:39,749  
that's a dangerous and unwelcoming

1353  
00:55:43,549 --> 00:55:42,029  
environment when we talk about having

1354  
00:55:45,649 --> 00:55:43,559  
students from Native communities where

1355  
00:55:47,509 --> 00:55:45,659  
addiction is a problem we've added a

1356  
00:55:48,559 --> 00:55:47,519  
whole nother layer of trauma and stress

1357  
00:55:50,419 --> 00:55:48,569  
to these students being in the field

1358  
00:55:53,239 --> 00:55:50,429  
science so they're there's a group it's

1359  
00:55:54,779 --> 00:55:53,249  
called golden you if you google it it's

1360  
00:55:56,939 --> 00:55:54,789  
hosted by end car

1361  
00:55:59,519 --> 00:55:56,949  
a new car and you'll see all the groups

1362  
00:56:00,689 --> 00:55:59,529  
that are there and the next workshop for

1363  
00:56:04,620 --> 00:56:00,699

field will be at the Ecological Society

1364

00:56:07,259 --> 00:56:04,630  
of America conference in August 11th and

1365

00:56:08,939 --> 00:56:07,269  
then in May of next year we'll have our

1366

00:56:12,479 --> 00:56:08,949  
third cohort where we bring the two

1367

00:56:13,709 --> 00:56:12,489  
first two cohorts together and see what

1368

00:56:16,249 --> 00:56:13,719  
they learned and how they can teach each

1369

00:56:20,309 --> 00:56:16,259  
other and so we're continuing that work

1370

00:56:22,829 --> 00:56:20,319  
thank you mm-hmm one more question Mary

1371

00:56:25,319 --> 00:56:22,839  
so I'm Mary Wojtek I'm a program officer

1372

00:56:27,120 --> 00:56:25,329  
at NASA and I want to first of all thank

1373

00:56:30,359 --> 00:56:27,130  
you for your patience and the work that

1374

00:56:35,429 --> 00:56:30,369  
you're doing to try to educate program

1375

00:56:36,749 --> 00:56:35,439  
officers you started on a bit of a path

1376

00:56:38,519 --> 00:56:36,759

when you were answering one of the

1377

00:56:40,949 --> 00:56:38,529

questions before that made me really

1378

00:56:42,959 --> 00:56:40,959

perk up fact--in sorry yeah no no no no

1379

00:56:45,269 --> 00:56:42,969

actually my question is about that path

1380

00:56:47,759 --> 00:56:45,279

you went on before you self corrected

1381

00:56:49,019 --> 00:56:47,769

and that was when the question was asked

1382

00:56:51,390 --> 00:56:49,029

about what is it that we're doing that's

1383

00:56:53,359 --> 00:56:51,400

annoying and one of the things that you

1384

00:56:56,579 --> 00:56:53,369

started to talk about was the fact that

1385

00:56:59,279 --> 00:56:56,589

if an proposal from an indigenous person

1386

00:57:00,870 --> 00:56:59,289

comes in don't automatically just select

1387

00:57:03,390 --> 00:57:00,880

it because you get your portfolio

1388

00:57:05,099 --> 00:57:03,400

diversity so I just wanted you to talk a

1389

00:57:08,909 --> 00:57:05,109

little bit more about that because I I

1390

00:57:10,349 --> 00:57:08,919

do think as a program officer I know

1391

00:57:12,359 --> 00:57:10,359

that maybe I have done something like

1392

00:57:15,149 --> 00:57:12,369

that but not to check a box but because

1393

00:57:16,880 --> 00:57:15,159

I feel my understanding and maybe this

1394

00:57:19,709 --> 00:57:16,890

is because I haven't asked anyone is

1395

00:57:22,589 --> 00:57:19,719

it's really important to have models and

1396

00:57:24,929 --> 00:57:22,599

to show that that a group can be

1397

00:57:26,849 --> 00:57:24,939

successful and that that actually

1398

00:57:29,579 --> 00:57:26,859

encourages other groups you know whether

1399

00:57:32,039 --> 00:57:29,589

it's it's a person or discipline or

1400

00:57:34,169 --> 00:57:32,049

whatever it's it's a way to recruit and

1401  
00:57:35,579 --> 00:57:34,179  
invite and so I'm just interested in

1402  
00:57:37,649 --> 00:57:35,589  
hearing what you have to say about that

1403  
00:57:39,329 --> 00:57:37,659  
yeah so some of that work the fear for

1404  
00:57:41,099 --> 00:57:39,339  
me is we have these broadening

1405  
00:57:44,640 --> 00:57:41,109  
participation initiatives right and

1406  
00:57:46,469 --> 00:57:44,650  
requirements and you can go to NSF and

1407  
00:57:48,659 --> 00:57:46,479  
probably other funding agencies and look

1408  
00:57:50,039 --> 00:57:48,669  
at their diversity portfolio of how many

1409  
00:57:51,659 --> 00:57:50,049  
students are completing degrees and how

1410  
00:57:54,539 --> 00:57:51,669  
much money is going into it and so one

1411  
00:57:57,209 --> 00:57:54,549  
of my fears is that we're gonna be fun

1412  
00:57:58,529 --> 00:57:57,219  
we're funding two things we're funding

1413  
00:57:59,909 --> 00:57:58,539

indigenous proposals we're recruiting

1414

00:58:03,239 --> 00:57:59,919

students they're not succeeding we have

1415

00:58:05,019 --> 00:58:03,249

a revolving door there's a program their

1416

00:58:08,589 --> 00:58:05,029

agenda is to graduate to Nate

1417

00:58:11,890 --> 00:58:08,599

students hypothetical to Native students

1418

00:58:13,179 --> 00:58:11,900

they do graduate - how many more

1419

00:58:15,789 --> 00:58:13,189

students went through that program and

1420

00:58:16,989 --> 00:58:15,799

didn't succeed and more importantly in

1421

00:58:19,209 --> 00:58:16,999

the state of Alaska

1422

00:58:21,689 --> 00:58:19,219

the suicide rate from students who don't

1423

00:58:24,669 --> 00:58:21,699

succeed in college is unbelievable

1424

00:58:27,609 --> 00:58:24,679

it is unbelievable and it is traumatic

1425

00:58:29,769 --> 00:58:27,619

in the cry I've had three four students

1426

00:58:31,989 --> 00:58:29,779

in my own community commit suicide and

1427

00:58:33,849 --> 00:58:31,999

it is gut-wrenching to see the life

1428

00:58:35,620 --> 00:58:33,859

wiped out of these kids eyes when they

1429

00:58:37,239 --> 00:58:35,630

feel like they can no longer go into

1430

00:58:37,599 --> 00:58:37,249

science because this is gonna happen to

1431

00:58:39,880 --> 00:58:37,609

them

1432

00:58:41,589 --> 00:58:39,890

there's a social obligation to working

1433

00:58:43,449 --> 00:58:41,599

with these communities when we're

1434

00:58:45,579 --> 00:58:43,459

driving the funding agencies are at the

1435

00:58:47,199 --> 00:58:45,589

top of driving that policy and there is

1436

00:58:49,509 --> 00:58:47,209

a responsibility to the communities that

1437

00:58:50,769 --> 00:58:49,519

we're funding there really is I know a

1438

00:58:53,199 --> 00:58:50,779

lot of them like know their stuff there

1439

00:58:56,289 --> 00:58:53,209

is we are allowing PI's to do this work

1440

00:58:59,799 --> 00:58:56,299

when they're not prepared to do it first

1441

00:59:02,890 --> 00:58:59,809

of all the other is I'm not train of

1442

00:59:04,209 --> 00:59:02,900

thought here is to meet that quota so

1443

00:59:05,380 --> 00:59:04,219

now we're saying okay we put all these

1444

00:59:07,749 --> 00:59:05,390

millions of dollars into native

1445

00:59:09,159 --> 00:59:07,759

education they're not graduating we're

1446

00:59:11,169 --> 00:59:09,169

gonna quit looking at Native people were

1447

00:59:12,640 --> 00:59:11,179

going to put funding these people when

1448

00:59:14,649 --> 00:59:12,650

the bottom line is they weren't being

1449

00:59:15,699 --> 00:59:14,659

funded correctly anyway the P I was

1450

00:59:17,409 --> 00:59:15,709

getting the money they didn't have the

1451  
00:59:18,729 --> 00:59:17,419  
relationship with the community and so

1452  
00:59:21,359 --> 00:59:18,739  
they turn of course and they worked on

1453  
00:59:25,269 --> 00:59:21,369  
another community but the money is still

1454  
00:59:27,309 --> 00:59:25,279  
coded as indigenous funding so now the

1455  
00:59:28,539 --> 00:59:27,319  
money's gone away to have two impacts

1456  
00:59:30,339 --> 00:59:28,549  
here and if we don't do these things

1457  
00:59:32,499 --> 00:59:30,349  
correctly than we're working with

1458  
00:59:35,019 --> 00:59:32,509  
diverse populations because a lot of

1459  
00:59:36,399 --> 00:59:35,029  
social damage and we perpetuate the

1460  
00:59:38,439 --> 00:59:36,409  
social damage and historical trauma

1461  
00:59:40,269 --> 00:59:38,449  
that's already been there but bringing

1462  
00:59:41,199 --> 00:59:40,279  
that to people again you're trying to

1463  
00:59:42,939 --> 00:59:41,209

fund you're trying to get your program

1464

00:59:44,349 --> 00:59:42,949

going your work but we don't stop to

1465

00:59:46,689 --> 00:59:44,359

think of these things because we've

1466

00:59:48,339 --> 00:59:46,699

never experienced it how many of you

1467

00:59:52,390 --> 00:59:48,349

have been in a community of 350 people

1468

00:59:55,109 --> 00:59:52,400

and you're related to everyone we don't

1469

00:59:58,659 --> 00:59:55,119

think of things like that and so

1470

01:00:00,069 --> 00:59:58,669

lifelong learning on what is diversity

1471

01:00:01,539 --> 01:00:00,079

what is what are we doing with these

1472

01:00:03,309 --> 01:00:01,549

communities and I'll tell you this and I

1473

01:00:06,609 --> 01:00:03,319

tell all the program off Google is your

1474

01:00:09,189 --> 01:00:06,619

friend Google that tribe see what they

1475

01:00:10,749 --> 01:00:09,199

all have websites you can see who the

1476

01:00:12,069 --> 01:00:10,759

leadership is when you get that proposal

1477

01:00:14,589 --> 01:00:12,079

you can see who the leadership is for

1478

01:00:16,680 --> 01:00:14,599

education for science there's a person

1479

01:00:17,970 --> 01:00:16,690

listed and if they're not on that letter

1480

01:00:19,770 --> 01:00:17,980

see many letter heads come in of a

1481

01:00:21,839 --> 01:00:19,780

community member who took the tribal

1482

01:00:24,690 --> 01:00:21,849

letterhead wrote the letter and gave it

1483

01:00:27,300 --> 01:00:24,700

to the pi the thing I didn't know the

1484

01:00:29,010 --> 01:00:27,310

community member I have no authority to

1485

01:00:31,440 --> 01:00:29,020

grant anybody access to anything and

1486

01:00:33,420 --> 01:00:31,450

they didn't either still learning

1487

01:00:35,190 --> 01:00:33,430

learning and staying deal it's just

1488

01:00:36,329 --> 01:00:35,200

another thing to add but if we're gonna

1489

01:00:38,690 --> 01:00:36,339

do these things and ethically

1490

01:00:43,620 --> 01:00:38,700

responsible you culturally aligned way

1491

01:00:46,740 --> 01:00:43,630

where we are not creating damage that's

1492

01:00:49,440 --> 01:00:46,750

what we have to do and so that's the -

1493

01:00:52,950 --> 01:00:49,450

my two fears is the social damage we're

1494

01:00:53,970 --> 01:00:52,960

going to perpetuate and the the removal

1495

01:00:56,579 --> 01:00:53,980

of funding because we're not having

1496

01:01:00,210 --> 01:00:56,589

success in these diverse communities as

1497

01:01:01,790 --> 01:01:00,220

I answer okay well how well done ethical

1498

01:01:03,920 --> 01:01:01,800

AG and thank you very much

1499

01:01:07,180 --> 01:01:03,930

please join me and thank you