1

00:00:16,840 --> 00:00:21,230

hello this is David Kilpatrick and I'm

2

00:00:19,250 --> 00:00:23,000

your presenter for these thirteen

3

00:00:21,230 --> 00:00:26,029

on-demand webinars these webinars are

4

00:00:23,000 --> 00:00:28,039

designed to introduce educators to the

5

00:00:26,029 --> 00:00:30,470

most useful information related to

6

00:00:28,039 --> 00:00:32,809

reading research that will help with

7

00:00:30,470 --> 00:00:36,650

assessment prevention and overcoming

8

00:00:32,809 --> 00:00:39,129

reading difficulties we are now in

9

00:00:36,650 --> 00:00:41,330

module four and module four contains

10

00:00:39,129 --> 00:00:42,949

seven different sessions it's the

11

00:00:41,330 --> 00:00:46,360

longest module in terms of number of

12

00:00:42,949 --> 00:00:50,839

sessions and we're at the fourth session

13

00:00:46,360 --> 00:00:53,750

orthographic mapping after viewing this

14

00:00:50,839 --> 00:00:55,519

session it is hoped that participants

15

00:00:53,750 --> 00:00:57,530

will be able to explain the process of

16

00:00:55,519 --> 00:00:59,420

orthographic mapping but I'm gonna

17

00:00:57,530 --> 00:01:01,280

mention right up front that most people

18

00:00:59,420 --> 00:01:03,100

don't really get it first time through

19

00:01:01,280 --> 00:01:05,960

you may want to watch this again and

20

00:01:03,100 --> 00:01:07,490

build upon your knowledge I know I

21

00:01:05,960 --> 00:01:09,500

didn't get it the first time I was

22

00:01:07,490 --> 00:01:12,710

exposed to it back in the late 90s I

23

00:01:09,500 --> 00:01:14,600

know many researchers are not familiar

24

00:01:12,710 --> 00:01:15,860

with how it works so don't be

25

00:01:14,600 --> 00:01:18,409

discouraged if you don't get it the

26

00:01:15,860 --> 00:01:20,720

first time through it's up to me to try

27

00:01:18,409 --> 00:01:22,580

to do my best to explain it but once you

28

00:01:20,720 --> 00:01:24,950

do understand it it's amazing how

29

00:01:22,580 --> 00:01:28,280

everything related to reading falls into

30

00:01:24,950 --> 00:01:30,050

place so neatly and then identify the

31

00:01:28,280 --> 00:01:32,360

two skills that are needed for efficient

32

00:01:30,050 --> 00:01:33,550

orthographic mapping this is important

33

00:01:32,360 --> 00:01:35,960

because it's going to lead to

34

00:01:33,550 --> 00:01:38,450

understanding what might be the best way

35

00:01:35,960 --> 00:01:40,390

to instruct children and the best way to

36

00:01:38,450 --> 00:01:42,980

intervene with reading problems and

37

00:01:40,390 --> 00:01:47,650

finally to look at how orthographic

38

00:01:42,980 --> 00:01:47,650

mapping is related to sight vocabulary

39

00:01:49,010 --> 00:01:52,580

let's recap a few things that have been

40

00:01:51,260 --> 00:01:55,010

learned in earlier sessions

41

00:01:52,580 --> 00:01:57,260

first of all word reading is not based

42

00:01:55,010 --> 00:02:00,620

upon visual memory that was covered in

43

00:01:57,260 --> 00:02:02,300

the second module secondly skilled word

44

00:02:00,620 --> 00:02:05,390

readers don't guess at the words they

45

00:02:02,300 --> 00:02:06,680

read based on context most or all the

46

00:02:05,390 --> 00:02:08,600

words they read they're already familiar

47

00:02:06,680 --> 00:02:11,510

with it and they instantly jump out at

48

00:02:08,600 --> 00:02:15,230

them phonological and phonemic skills

49

00:02:11,510 --> 00:02:18,230

are central to remembering words how

50

00:02:15,230 --> 00:02:24,470

they are words remembered orthographic

51

00:02:18,230 --> 00:02:27,320

memory orthographic memory is the memory

52

00:02:24,470 --> 00:02:30,290

for specific familiar sequences of

53

00:02:27,320 --> 00:02:32,450

letters it means that you remember the

54

00:02:30,290 --> 00:02:34,070

correct letter order orthography means

55

00:02:32,450 --> 00:02:36,140

the correct way to write something in

56

00:02:34,070 --> 00:02:38,960

any given language system orthographic

57

00:02:36,140 --> 00:02:41,480

memory is a memory that is a familiarity

58

00:02:38,960 --> 00:02:45,290

with the specific letter order of any

59

00:02:41,480 --> 00:02:47,510

given word there are two broad levels of

60

00:02:45,290 --> 00:02:49,940

orthographic memory there's orthographic

61

00:02:47,510 --> 00:02:52,250

recognition and that's what we need to

62

00:02:49,940 --> 00:02:56,720

instantly and effortlessly recognize

63

00:02:52,250 --> 00:02:58,730

familiar words orthographic recall is

64

00:02:56,720 --> 00:03:01,370

needed to produce the correct spellings

65

00:02:58,730 --> 00:03:03,320

of words particularly words that can't

66

00:03:01,370 --> 00:03:05,660

be reliably spelled phonetically for

67

00:03:03,320 --> 00:03:08,450

example irregular words or words that

68

00:03:05,660 --> 00:03:09,770

may be phonetically correct but there

69

00:03:08,450 --> 00:03:11,840

are multiple ways of spelling it

70

00:03:09,770 --> 00:03:13,840

phonetically correct like the examples

71

00:03:11,840 --> 00:03:16,700

you see there

72

00:03:13,840 --> 00:03:19,880

orthographic recognition is typically

73

00:03:16,700 --> 00:03:21,770

easier than orthographic recall for

74

00:03:19,880 --> 00:03:23,630

example more people can easily read

75

00:03:21,770 --> 00:03:27,850

words like rendezvous and colonel and

76

00:03:23,630 --> 00:03:27,850

licorice than can easily spell them

77

00:03:29,260 --> 00:03:33,350

there's extensive research on

78

00:03:31,430 --> 00:03:35,330

orthographic learning there are three

79

00:03:33,350 --> 00:03:38,090

major areas of orthographic learning

80

00:03:35,330 --> 00:03:41,060

research one pertains to David Share’s

81

00:03:38,090 --> 00:03:43,280

self-teaching hypothesis the second to

82

00:03:41,060 --> 00:03:45,860

Linnea Ehri’s orthographic mapping theory

83

00:03:43,280 --> 00:03:48,770

and third to various computer models

84

00:03:45,860 --> 00:03:50,290

that simulate how words are learned our

85

00:03:48,770 --> 00:03:53,209

focus is going to be on the first two

86

00:03:50,290 --> 00:03:56,300

each of which has extensive direct and

87

00:03:53,209 --> 00:03:58,100

indirect scientific support both the

88

00:03:56,300 --> 00:04:00,350

self-teaching hypothesis and

89

00:03:58,100 --> 00:04:01,870

orthographic mapping theory while they

90

00:04:00,350 --> 00:04:04,660

overlap they're not

91

00:04:01,870 --> 00:04:07,060

yet they both affirm that letter-sound

92

00:04:04,660 --> 00:04:09,730

skills and phonemic skills are central

93

00:04:07,060 --> 00:04:12,330

to remembering words and visual memory

94

00:04:09,730 --> 00:04:14,680

does not play any measurable role in

95

00:04:12,330 --> 00:04:17,860

remembering words beyond simple visual

96

00:04:14,680 --> 00:04:19,239

input and keep in mind input and storage

97

00:04:17,860 --> 00:04:21,130

are not the same thing so we're talking

98

00:04:19,239 --> 00:04:22,990

about how we store words not how we

99

00:04:21,130 --> 00:04:28,540

input words we know we input words

100

00:04:22,990 --> 00:04:30,490

visually to begin discussing the self

101

00:04:28,540 --> 00:04:34,120

teaching hypothesis it's important to

102

00:04:30,490 --> 00:04:38,110

bring out the fact that adult competent

103

00:04:34,120 --> 00:04:40,030

readers have between 30,000 and 60,000

104

00:04:38,110 --> 00:04:42,400

words in their sight vocabulary or their

105

00:04:40,030 --> 00:04:43,960

orthographic lexicon meaning you could

106

00:04:42,400 --> 00:04:46,450

take any one of the thirty to sixty

107

00:04:43,960 --> 00:04:48,190

thousand words that you know put them on

108

00:04:46,450 --> 00:04:49,750

the screen for just a twentieth of a

109

00:04:48,190 --> 00:04:54,370

second and you'll still be able to read

110

00:04:49,750 --> 00:04:56,650

it how many of those words by the way

111

00:04:54,370 --> 00:04:59,530

did your teachers teach you or your

112

00:04:56,650 --> 00:05:02,230

parents hundreds probably maybe a

113

00:04:59,530 --> 00:05:04,620

thousand at most so how did you learn

114

00:05:02,230 --> 00:05:07,180

those other words you taught yourself

115

00:05:04,620 --> 00:05:08,980

that's the idea behind the self-teaching

116

00:05:07,180 --> 00:05:12,090

hypothesis and where it gets its name

117

00:05:08,980 --> 00:05:15,280

the vast majority of words we learned

118

00:05:12,090 --> 00:05:17,410

ourselves through reading how did we

119

00:05:15,280 --> 00:05:19,630

remember them well orthographic learning

120

00:05:17,410 --> 00:05:22,300

occurs one word at a time both Ehri and

121

00:05:19,630 --> 00:05:24,460

Share’s theory affirm that in other words

122

00:05:22,300 --> 00:05:25,990

you need to see a word in order to

123

00:05:24,460 --> 00:05:28,840

remember it we can only remember things

124

00:05:25,990 --> 00:05:30,790

that we've seen before and this learning

125

00:05:28,840 --> 00:05:32,530

only occurs as a result of an encounter

126

00:05:30,790 --> 00:05:34,390

with the letters and sounds in the words

127

00:05:32,530 --> 00:05:36,610

they have to be learned it's not based

128

00:05:34,390 --> 00:05:39,790

on some sort of visual memory you have

129

00:05:36,610 --> 00:05:41,770

to actually see the word and make note

130

00:05:39,790 --> 00:05:43,450

of the letter order because that's what

131

00:05:41,770 --> 00:05:46,630

orthographic memory is remembering the

132

00:05:43,450 --> 00:05:48,880

letter order orthographic learning is

133

00:05:46,630 --> 00:05:51,550

implicit meaning it is rarely a matter

134

00:05:48,880 --> 00:05:55,090

of conscious thought chances are you and

135

00:05:51,550 --> 00:05:58,360

I cannot remember consciously storing 30

136

00:05:55,090 --> 00:06:00,010

40 50 thousand words yes there are times

137

00:05:58,360 --> 00:06:01,870

we come across a particularly difficult

138

00:06:00,010 --> 00:06:03,610

word and we might try to figure out a

139

00:06:01,870 --> 00:06:06,610

way to remember it but for the most part

140

00:06:03,610 --> 00:06:10,570

the learning of words happened in the

141

00:06:06,610 --> 00:06:13,720

background numerous research studies

142

00:06:10,570 --> 00:06:15,100

have shown that from second grade on for

143

00:06:13,720 --> 00:06:15,280

kids that are on target in terms of

144

00:06:15,100 --> 00:06:17,550

their

145

00:06:15,280 --> 00:06:20,290

reading development we only need to see

146

00:06:17,550 --> 00:06:22,300

printed words between one and four times

147

00:06:20,290 --> 00:06:26,710

and they become permanently stored for

148

00:06:22,300 --> 00:06:28,630

future instant recall as students phonically

149

00:06:26,710 --> 00:06:31,480

decode words says the self-teaching

150

00:06:28,630 --> 00:06:33,460

hypothesis they are connecting phonemes

151

00:06:31,480 --> 00:06:35,650

with graphemes meaning letters and

152

00:06:33,460 --> 00:06:36,970

digraphs and forming orthographic

153

00:06:35,650 --> 00:06:39,730

connections so in other words they're

154

00:06:36,970 --> 00:06:43,510

establishing in their memory the order

155

00:06:39,730 --> 00:06:45,310

of the latter's self-teaching occurs

156

00:06:43,510 --> 00:06:47,080

efficiently in students who are skilled

157

00:06:45,310 --> 00:06:48,310

with letter and sound knowledge but

158

00:06:47,080 --> 00:06:50,350

doesn't work well with students who

159

00:06:48,310 --> 00:06:52,390

struggle with letters of phonemes so we

160

00:06:50,350 --> 00:06:55,390

have a situation in which children that

161

00:06:52,390 --> 00:06:56,620

struggle in reading may learn to sound

162

00:06:55,390 --> 00:06:58,210

out words but they're not good at

163

00:06:56,620 --> 00:06:59,919

remembering the words they read we don't

164

00:06:58,210 --> 00:07:02,350

have the reverse we don't have kids that

165

00:06:59,919 --> 00:07:03,700

are perfectly competent at remembering

166

00:07:02,350 --> 00:07:07,000

the words they read but can't sound out

167

00:07:03,700 --> 00:07:08,860

nonsense words so based upon the last

168

00:07:07,000 --> 00:07:12,190

two sessions when we saw the development

169

00:07:08,860 --> 00:07:14,560

of word reading we see that the phonic

170

00:07:12,190 --> 00:07:19,330

decoding comes before the efficient word

171

00:07:14,560 --> 00:07:21,880

memory orthographic learning requires

172

00:07:19,330 --> 00:07:24,550

skilled phonic decoding that is not

173

00:07:21,880 --> 00:07:27,100

optional very often it is assumed that

174

00:07:24,550 --> 00:07:28,270

phonics is an unnecessary part of

175

00:07:27,100 --> 00:07:29,950

learning to read because so many

176

00:07:28,270 --> 00:07:31,690

children learn to read even though they

177

00:07:29,950 --> 00:07:34,510

were not specifically taught phonics

178

00:07:31,690 --> 00:07:37,060

even children who never received phonic

179

00:07:34,510 --> 00:07:38,680

instruction those children still can

180

00:07:37,060 --> 00:07:40,720

build a sight vocabulary of thirty to

181

00:07:38,680 --> 00:07:42,910

sixty thousand words but those children

182

00:07:40,720 --> 00:07:44,890

can also sound out nonsense words so

183

00:07:42,910 --> 00:07:47,800

they learned how to read in spite of not

184

00:07:44,890 --> 00:07:52,240

being taught they figured out the code

185

00:07:47,800 --> 00:07:54,100

on their own orthographic mapping

186

00:07:52,240 --> 00:07:56,100

describes the mental process used to

187

00:07:54,100 --> 00:07:58,539

remember words in the self-teaching

188

00:07:56,100 --> 00:08:00,190

hypothesis really very little in terms

189

00:07:58,539 --> 00:08:02,169

of the actual cognitive connection

190

00:08:00,190 --> 00:08:05,020

forming process where the orthographic

191

00:08:02,169 --> 00:08:08,500

mapping theory does more to help us

192

00:08:05,020 --> 00:08:10,090

understand that process so the focus of

193

00:08:08,500 --> 00:08:11,680

the self-teaching hypothesis includes

194

00:08:10,090 --> 00:08:14,380

the real-world situation in which

195

00:08:11,680 --> 00:08:16,810

orthographic learning occurs when does

196

00:08:14,380 --> 00:08:19,300

it occur it occurs during real reading

197

00:08:16,810 --> 00:08:20,830

situations throughout our lives from our

198

00:08:19,300 --> 00:08:22,360

childhood up until today as we're

199

00:08:20,830 --> 00:08:25,030

reading along and you encounter a new

200

00:08:22,360 --> 00:08:28,060

word you put in a little bit of extra

201

00:08:25,030 --> 00:08:28,700

mental energy to sound it out and that

202

00:08:28,060 --> 00:08:30,410

 allows

203

00:08:28,700 --> 00:08:32,990

you know what the word is and you

204

00:08:30,410 --> 00:08:37,070

continue going well in that little time

205

00:08:32,990 --> 00:08:39,440

wonderful exposures to words that way we

206

00:08:37,070 --> 00:08:41,630

remember that particular letter order

207

00:08:39,440 --> 00:08:44,380

but the self-teaching hypothesis doesn't

208

00:08:41,630 --> 00:08:47,030

explain how that happens

209

00:08:44,380 --> 00:08:48,560

it does explain though that the central

210

00:08:47,030 --> 00:08:53,090

requirement for good orthographic

211

00:08:48,560 --> 00:08:55,310

learning is phonic decoding by contrast

212

00:08:53,090 --> 00:08:57,140

orthographic mapping describes the

213

00:08:55,310 --> 00:08:58,970

mental cognitive connection forming

214

00:08:57,140 --> 00:09:02,120

process that allows us to remember the

215

00:08:58,970 --> 00:09:04,280

words that we read however it really

216

00:09:02,120 --> 00:09:06,730

describes it in a more abstract way it

217

00:09:04,280 --> 00:09:12,040

doesn't put it within a context that

218

00:09:06,730 --> 00:09:15,440

Share’s Theory does of real-world reading

219

00:09:12,040 --> 00:09:18,430

so together the orthographic mapping

220

00:09:15,440 --> 00:09:21,110

theory and the self-teaching hypothesis

221

00:09:18,430 --> 00:09:23,210

explain a lot about how we build our

222

00:09:21,110 --> 00:09:24,920

sight vocabulary it seems like between

223

00:09:23,210 --> 00:09:28,670

the two of them it's a very well

224

00:09:24,920 --> 00:09:30,260

understood process keep in mind that

225

00:09:28,670 --> 00:09:32,300

orthographic mapping is a mental process

226

00:09:30,260 --> 00:09:34,070

not a teaching technique I've had people

227

00:09:32,300 --> 00:09:35,750

approach me that have learned about

228

00:09:34,070 --> 00:09:37,370

orthographic mapping and said oh yeah we

229

00:09:35,750 --> 00:09:39,500

did orthographic mapping with the kids

230

00:09:37,370 --> 00:09:41,060

well orthographic mapping isn't an

231

00:09:39,500 --> 00:09:41,690

activity you can do with kids or anybody

232

00:09:41,060 --> 00:09:44,450

else

233

00:09:41,690 --> 00:09:47,300

orthographic mapping is a mental process

234

00:09:44,450 --> 00:09:49,060

that occurs and can't be seen it's the

235

00:09:47,300 --> 00:09:52,130

connection forming process that attaches

236

00:09:49,060 --> 00:09:53,660

pronunciations of oral words to the

237

00:09:52,130 --> 00:09:55,730

string of letters that we call the

238

00:09:53,660 --> 00:10:00,380

printed word used to represent those

239

00:09:55,730 --> 00:10:02,450

oral words so what is the mental process

240

00:10:00,380 --> 00:10:04,790

that's described by orthographic mapping

241

00:10:02,450 --> 00:10:06,680

what words are remembered by connecting

242

00:10:04,790 --> 00:10:09,940

pronunciations of oral words to their

243

00:10:06,680 --> 00:10:12,050

written counterparts the word spellings

244

00:10:09,940 --> 00:10:13,400

when we learn new things we're

245

00:10:12,050 --> 00:10:15,860

connecting what's new to something

246

00:10:13,400 --> 00:10:19,340

that's old that's a process that starts

247

00:10:15,860 --> 00:10:20,930

from from birth onward is that as we

248

00:10:19,340 --> 00:10:22,400

learn new things we're connecting new

249

00:10:20,930 --> 00:10:24,650

things to things we've already learned

250

00:10:22,400 --> 00:10:27,530

well what do we already know we already

251

00:10:24,650 --> 00:10:31,630

know a words pronunciation so if a child

252

00:10:27,530 --> 00:10:33,950

knows a word like red or sock or house

253

00:10:31,630 --> 00:10:35,690

that child already has something

254

00:10:33,950 --> 00:10:38,360

anchored in their long-term memory that

255

00:10:35,690 --> 00:10:40,190

they connect the spelling to and that is

256

00:10:38,360 --> 00:10:41,880

the oral pronunciation of the word and

257

00:10:40,190 --> 00:10:45,960

typically the meaning of that word

258

00:10:41,880 --> 00:10:47,640

as well this can only happen at the

259

00:10:45,960 --> 00:10:50,910

phoneme level because of the phonemic

260

00:10:47,640 --> 00:10:53,610

nature of alphabetic writing proficient

261

00:10:50,910 --> 00:10:55,440

phoneme level abilities are necessary to

262

00:10:53,610 --> 00:10:58,110

efficiently remember words by connecting

263

00:10:55,440 --> 00:11:00,540

the phonemes in the pronunciations to

264

00:10:58,110 --> 00:11:02,280

the letter sequences that are used to

265

00:11:00,540 --> 00:11:04,410

spell that word this may all seem like

266

00:11:02,280 --> 00:11:05,670

an abstraction at the moment but as we

267

00:11:04,410 --> 00:11:07,460

go through this I'm going to try to make

268

00:11:05,670 --> 00:11:09,870

it a little bit more clear and concrete

269

00:11:07,460 --> 00:11:12,350

let's talk about the flow of information

270

00:11:09,870 --> 00:11:14,850

that's involved in orthographic mapping

271

00:11:12,350 --> 00:11:16,320

phonic decoding goes from text to brain

272

00:11:14,850 --> 00:11:17,670

meaning you're looking at a text it's

273

00:11:16,320 --> 00:11:20,130

got a word on it you're gonna try to

274

00:11:17,670 --> 00:11:21,840

figure that word out you identify the

275

00:11:20,130 --> 00:11:24,420

sounds the letters you blend those

276

00:11:21,840 --> 00:11:27,450

sounds together and hopefully activate

277

00:11:24,420 --> 00:11:30,300

the correct pronunciation orthographic

278

00:11:27,450 --> 00:11:32,370

mapping goes from brain to text now the

279

00:11:30,300 --> 00:11:35,220

reality is orthographic mapping goes in

280

00:11:32,370 --> 00:11:37,380

both directions but it's the brain to

281

00:11:35,220 --> 00:11:38,760

text part of that equation that people

282

00:11:37,380 --> 00:11:40,710

are unfamiliar with and don't

283

00:11:38,760 --> 00:11:43,650

necessarily understand so I'm going to

284

00:11:40,710 --> 00:11:46,620

emphasize that part you have the words

285

00:11:43,650 --> 00:11:48,630

pronunciation and you have the phonemes

286

00:11:46,620 --> 00:11:50,280

in that pronunciation and you attach the

287

00:11:48,630 --> 00:11:51,600

phonemes in that pronunciation to that

288

00:11:50,280 --> 00:11:53,520

letter sequence so you're going from

289

00:11:51,600 --> 00:11:57,330

what you know to what you're trying to

290

00:11:53,520 --> 00:11:59,760

learn it's not just the pronunciation

291

00:11:57,330 --> 00:12:01,290

but it's the phonemic nature of the

292

00:11:59,760 --> 00:12:03,570

pronunciation it's breaking that

293

00:12:01,290 --> 00:12:05,610

pronunciation down into phonemes so that

294

00:12:03,570 --> 00:12:07,290

they can be attached to that letter

295

00:12:05,610 --> 00:12:08,940

sequence so that that letter sequence

296

00:12:07,290 --> 00:12:10,890

can become familiar why is it familiar

297

00:12:08,940 --> 00:12:12,420

because you've attached it to something

298

00:12:10,890 --> 00:12:15,270

you already know which is the words

299

00:12:12,420 --> 00:12:17,310

pronunciation the flow of information is

300

00:12:15,270 --> 00:12:20,820

in the opposite direction of phonic

301

00:12:17,310 --> 00:12:22,440

decoding so a specific letter order

302

00:12:20,820 --> 00:12:23,850

which we call a written word it becomes

303

00:12:22,440 --> 00:12:26,040

familiar and very well established

304

00:12:23,850 --> 00:12:28,170

because the pronunciation already is

305

00:12:26,040 --> 00:12:31,200

established so if you can connect what

306

00:12:28,170 --> 00:12:33,450

is known the words pronunciation to what

307

00:12:31,200 --> 00:12:36,210

is unknown the letter string you can

308

00:12:33,450 --> 00:12:40,580

make that letter string that is a

309

00:12:36,210 --> 00:12:42,930

written word very familiar very quickly

310

00:12:40,580 --> 00:12:45,570

orthographic mapping certainly benefits

311

00:12:42,930 --> 00:12:48,750

from phonic decoding as the self

312

00:12:45,570 --> 00:12:51,140

teaching hypothesis indicates so it's in

313

00:12:48,750 --> 00:12:53,250

that process of sounding out words and

314

00:12:51,140 --> 00:12:54,750

activating the relationship between the

315

00:12:53,250 --> 00:12:55,529

letters and sounds that allows the

316

00:12:54,750 --> 00:12:59,819

Orthographic mapping

317

00:12:55,529 --> 00:13:02,879

process to occur so orthographic

318

00:12:59,819 --> 00:13:05,160

learning is really a matter of phonic

319

00:13:02,879 --> 00:13:07,379

decoding plus orthographic mapping but

320

00:13:05,160 --> 00:13:09,899

the phonemic requirements of phonic

321

00:13:07,379 --> 00:13:11,550

decoding are less sophisticated than the

322

00:13:09,899 --> 00:13:13,379

phonemic requirements of orthographic

323

00:13:11,550 --> 00:13:16,199

mapping that should become clear later

324

00:13:13,379 --> 00:13:18,389

and in fact it should be clear from the

325

00:13:16,199 --> 00:13:21,779

developmental chart that you saw in the

326

00:13:18,389 --> 00:13:23,279

previous two sessions you need the

327

00:13:21,779 --> 00:13:25,589

equivalent of an ending first-grade

328

00:13:23,279 --> 00:13:28,529

level of phonemic awareness skills to do

329

00:13:25,589 --> 00:13:30,930

phonic decoding but you need further more

330

00:13:28,529 --> 00:13:32,639

developed what I refer to as advanced

331

00:13:30,930 --> 00:13:36,329

phonemic awareness to become efficient

332

00:13:32,639 --> 00:13:38,430

at orthographic mapping let's try to

333

00:13:36,329 --> 00:13:42,240

take a look at how this mapping process

334

00:13:38,430 --> 00:13:46,230

works so let's begin with the oral part

335

00:13:42,240 --> 00:13:48,449

first when you see in any reading

336

00:13:46,230 --> 00:13:50,459

related research or writings about

337

00:13:48,449 --> 00:13:53,220

reading when you see a slash mark on

338

00:13:50,459 --> 00:13:54,660

either side of a letter it doesn't refer

339

00:13:53,220 --> 00:13:57,110

to that letter refers to the common

340

00:13:54,660 --> 00:14:00,240

sound of that letter so if you saw the

341

00:13:57,110 --> 00:14:03,569

slash mark on either side of a t that

342

00:14:00,240 --> 00:14:05,100

is not the letter T well I've taken that

343

00:14:03,569 --> 00:14:08,129

same convention I've applied it to a

344

00:14:05,100 --> 00:14:09,660

whole word here the idea is that that

345

00:14:08,129 --> 00:14:11,819

what you're looking at is not the

346

00:14:09,660 --> 00:14:13,949

printed word red that is the oral word

347

00:14:11,819 --> 00:14:15,990

red and you see over on the left that's

348

00:14:13,949 --> 00:14:17,850

PL TM that stands for your

349

00:14:15,990 --> 00:14:19,589

phonological long term memory in other

350

00:14:17,850 --> 00:14:22,139

words read is a pronunciation that

351

00:14:19,589 --> 00:14:24,329

you're familiar with so if a child knows

352

00:14:22,139 --> 00:14:25,860

the word red they know what it means

353

00:14:24,329 --> 00:14:28,920

they know what it sounds like they know

354

00:14:25,860 --> 00:14:31,110

they've heard it before let's see how

355

00:14:28,920 --> 00:14:33,420

their brain they're mind they're their

356

00:14:31,110 --> 00:14:35,790

memory system can be prepared to learn

357

00:14:33,420 --> 00:14:37,860

the printed word red if they have good

358

00:14:35,790 --> 00:14:39,480

phoneme analysis skills or phoneme

359

00:14:37,860 --> 00:14:42,750

awareness skills analysis meaning you

360

00:14:39,480 --> 00:14:44,250

can pull the word apart look at this now

361

00:14:42,750 --> 00:14:48,449

you've got the sounds within red

362

00:14:44,250 --> 00:14:49,769

available to you /r/ /e/ /d/ well you already

363

00:14:48,449 --> 00:14:51,540

have that pronunciation in your

364

00:14:49,769 --> 00:14:53,160

long-term memory and if that

365

00:14:51,540 --> 00:14:54,240

pronunciation can be easily and

366

00:14:53,160 --> 00:14:57,240

naturally pulled apart

367

00:14:54,240 --> 00:15:00,449

you now have anchoring points for this

368

00:14:57,240 --> 00:15:02,879

printed sequence you attach each of

369

00:15:00,449 --> 00:15:06,600

those phonemes to its corresponding

370

00:15:02,879 --> 00:15:08,459

letter and suddenly you're using the

371

00:15:06,600 --> 00:15:09,170

power of what you already know which is

372

00:15:08,459 --> 00:15:11,809

the pronunciation

373

00:15:09,170 --> 00:15:15,249

the word red and attaching it like

374

00:15:11,809 --> 00:15:21,109

superglue like suction cups to the

375

00:15:15,249 --> 00:15:23,449

printed word red you get a word like has

376

00:15:21,109 --> 00:15:27,169

you know the pronunciation of has you

377

00:15:23,449 --> 00:15:28,790

can break that apart /h/ /a/ /z/ well now you see

378

00:15:27,169 --> 00:15:31,279

it's an h a s the child may have

379

00:15:28,790 --> 00:15:33,709

expected a Z but as you know in many

380

00:15:31,279 --> 00:15:36,709

words the S makes a Z sound at the end

381

00:15:33,709 --> 00:15:39,350

of a word and so the child can map

382

00:15:36,709 --> 00:15:41,779

those sounds onto that particular

383

00:15:39,350 --> 00:15:44,239

spelling pattern and that way they're

384

00:15:41,779 --> 00:15:47,179

anchoring the pronunciation to the

385

00:15:44,239 --> 00:15:50,179

letter sequence notice this is the opposite

386

00:15:47,179 --> 00:15:51,799

information flow compared to phonic

387

00:15:50,179 --> 00:15:54,589

decoding phonic decoding would go in the

388

00:15:51,799 --> 00:15:58,249

other direction so let's take a look at

389

00:15:54,589 --> 00:16:00,559

how this mapping process interacts with

390

00:15:58,249 --> 00:16:02,929

phonic decoding by way of integrating

391

00:16:00,559 --> 00:16:05,480

both the self-teaching hypothesis of

392

00:16:02,929 --> 00:16:09,259

David Share and the orthographic mapping

393

00:16:05,480 --> 00:16:11,359

theory of Linnea Ehri so based on the self-

394

00:16:09,259 --> 00:16:13,369

teaching hypothesis we begin with good

395

00:16:11,359 --> 00:16:16,790

phonic decoding that is how we begin to

396

00:16:13,369 --> 00:16:19,549

establish an orthographic memory a child

397

00:16:16,790 --> 00:16:22,249

sees the word win now the child already

398

00:16:19,549 --> 00:16:23,899

knows the word win they've played games

399

00:16:22,249 --> 00:16:26,119

before they know what the word win means

400

00:16:23,899 --> 00:16:28,009

and they've heard the word win but let's

401

00:16:26,119 --> 00:16:30,439

say the child has never seen the word in

402

00:16:28,009 --> 00:16:32,959

print before if the child has

403

00:16:30,439 --> 00:16:35,389

letter-sound knowledge the child can

404

00:16:32,959 --> 00:16:38,600

attach the common sound to each of those

405

00:16:35,389 --> 00:16:40,939

letters so here's the child turning

406

00:16:38,600 --> 00:16:45,559

those particular letters into their

407

00:16:40,939 --> 00:16:46,639

respective sounds the child says /w/ /i/ /n/

408

00:16:45,559 --> 00:16:48,290

many of you may have encountered

409

00:16:46,639 --> 00:16:51,199

children who may look at something like

410

00:16:48,290 --> 00:16:52,399

this and see /w/ /i/ /n/and turn and look

411

00:16:51,199 --> 00:16:54,439

at the teacher and say what's the word

412

00:16:52,399 --> 00:16:56,600

and you say what's the word you just

413

00:16:54,439 --> 00:16:59,480

sounded it out well that child has a

414

00:16:56,600 --> 00:17:01,220

problem with phonological blending so

415

00:16:59,480 --> 00:17:02,869

what needs to happen is not only does

416

00:17:01,220 --> 00:17:04,339

that child need to activate the sounds

417

00:17:02,869 --> 00:17:06,230

that go with the letters the child needs

418

00:17:04,339 --> 00:17:08,179

to blend them together and when they're

419

00:17:06,230 --> 00:17:10,789

blended together that activates the

420

00:17:08,179 --> 00:17:13,370

whole word win and the child says oh

421

00:17:10,789 --> 00:17:14,779

win so now you see what those slash

422

00:17:13,370 --> 00:17:16,370

marks were talking about the

423

00:17:14,779 --> 00:17:17,809

phonological long term memory we're

424

00:17:16,370 --> 00:17:20,199

talking about the oral form of the word

425

00:17:17,809 --> 00:17:22,950

so the child began with the written form

426

00:17:20,199 --> 00:17:24,510

used phonic decoding and phonic decoding

427

00:17:22,950 --> 00:17:27,210

is applying letter-sound knowledge and

428

00:17:24,510 --> 00:17:29,190

phoneme blending to activate a spoken

429

00:17:27,210 --> 00:17:31,770

pronunciation but according to Share’s

430

00:17:29,190 --> 00:17:33,720

theory this is how a child learns to

431

00:17:31,770 --> 00:17:36,210

read and when we overlay Ehri’s theory on

432

00:17:33,720 --> 00:17:39,180

top of it we see that this is now in the

433

00:17:36,210 --> 00:17:41,400

child's current working memory but in

434

00:17:39,180 --> 00:17:43,500

the background we'll see what I mean by

435

00:17:41,400 --> 00:17:45,840

in the background in upcoming slides the

436

00:17:43,500 --> 00:17:49,200

child if he or she has very proficient

437

00:17:45,840 --> 00:17:51,630

phoneme skills and phoneme analysis

438

00:17:49,200 --> 00:17:54,540

skills now that he or she is aware of

439

00:17:51,630 --> 00:17:56,640

the pronunciation they're able to work

440

00:17:54,540 --> 00:17:58,920

backward from that pronunciation to the

441

00:17:56,640 --> 00:18:00,600

spelling pattern so there you go now

442

00:17:58,920 --> 00:18:02,460

we're taking that full pronunciation

443

00:18:00,600 --> 00:18:04,920

we're able to break it up and turn

444

00:18:02,460 --> 00:18:07,080

around and apply that to that letter

445

00:18:04,920 --> 00:18:08,310

sequence so this represents an

446

00:18:07,080 --> 00:18:10,410

integration of the self-teaching

447

00:18:08,310 --> 00:18:12,900

hypothesis and the orthographic mapping

448

00:18:10,410 --> 00:18:15,210

hypothesis and together they give us a

449

00:18:12,900 --> 00:18:17,490

very clear understanding of the

450

00:18:15,210 --> 00:18:24,090

relationship between phonological skills

451

00:18:17,490 --> 00:18:26,400

and reading development in the previous

452

00:18:24,090 --> 00:18:27,750

slide all the words were considered to

453

00:18:26,400 --> 00:18:30,090

be transparent meaning there's a

454

00:18:27,750 --> 00:18:31,770

one-to-one correspondence between the

455

00:18:30,090 --> 00:18:34,470

number of letters and the number of

456

00:18:31,770 --> 00:18:36,270

sounds and the words but there are also

457

00:18:34,470 --> 00:18:38,370

words that are referred to as opaque in

458

00:18:36,270 --> 00:18:40,290

the sense that there is not a one-to-one

459

00:18:38,370 --> 00:18:40,590

correspondence so you get a word like

460

00:18:40,290 --> 00:18:43,590

this

461

00:18:40,590 --> 00:18:45,030

/m/ /a/ /k/ and now you have a problem

462

00:18:43,590 --> 00:18:48,300

because now you see there are four

463

00:18:45,030 --> 00:18:49,920

letters but only three sounds when the

464

00:18:48,300 --> 00:18:51,600

context of mapping it's really not a

465

00:18:49,920 --> 00:18:53,370

problem and knowing the silent e rule

466

00:18:51,600 --> 00:18:54,720

can be helpful and useful to make sense

467

00:18:53,370 --> 00:18:58,020

as you create the map between

468

00:18:54,720 --> 00:18:59,700

pronunciation and print so you see each

469

00:18:58,020 --> 00:19:02,130

of those line up with their

470

00:18:59,700 --> 00:19:03,360

corresponding sound and once again if

471

00:19:02,130 --> 00:19:05,250

you're familiar with the silent e rule

472

00:19:03,360 --> 00:19:06,780

you don't get thrown off by the fact

473

00:19:05,250 --> 00:19:11,610

that there's an extra letter in that

474

00:19:06,780 --> 00:19:14,640

sequence now you have the word read same

475

00:19:11,610 --> 00:19:17,040

thing we have three sounds but we've got

476

00:19:14,640 --> 00:19:19,200

four letters in this case you have a

477

00:19:17,040 --> 00:19:21,690

vowel digraph not rather than a silent e

478

00:19:19,200 --> 00:19:24,300

and you're able to map those to their

479

00:19:21,690 --> 00:19:28,170

corresponding units that help represent

480

00:19:24,300 --> 00:19:32,130

the oral pronunciation now you have an

481

00:19:28,170 --> 00:19:33,870

irregular word comb and you got a little

482

00:19:32,130 --> 00:19:35,740

bit of a problem it's not a silent E

483

00:19:33,870 --> 00:19:36,870

word but from a mapping

484

00:19:35,740 --> 00:19:39,190

point it's not a whole lot different

485

00:19:36,870 --> 00:19:41,130

from mapping standpoint just like the

486

00:19:39,190 --> 00:19:44,020

word make you're able to map to those

487

00:19:41,130 --> 00:19:46,050

letters that represent the sounds but

488

00:19:44,020 --> 00:19:48,910

now you realize you have something extra

489

00:19:46,050 --> 00:19:51,070

typically B is not silent but we do know

490

00:19:48,910 --> 00:19:56,530

there are a bunch of mb words that

491

00:19:51,070 --> 00:19:58,480

have a B that's silent so let me

492

00:19:56,530 --> 00:20:01,030

distinguish between phonic decoding and

493

00:19:58,480 --> 00:20:03,400

orthographic mapping phonic decoding

494

00:20:01,030 --> 00:20:05,890

involves identifying an unfamiliar word

495

00:20:03,400 --> 00:20:07,720

the individual figures out the word

496

00:20:05,890 --> 00:20:10,270

through letter sound knowledge and

497

00:20:07,720 --> 00:20:12,790

phonological blending the flow of

498

00:20:10,270 --> 00:20:15,130

information is from orthography that is

499

00:20:12,790 --> 00:20:17,170

the spelling pattern to phonology that

500

00:20:15,130 --> 00:20:21,640

is the pronunciation so it goes from

501

00:20:17,170 --> 00:20:23,500

text to brain phonic decoding is about

502

00:20:21,640 --> 00:20:26,500

identifying a word and it's not about

503

00:20:23,500 --> 00:20:28,000

remembering a word orthographic mapping

504

00:20:26,500 --> 00:20:29,710

only works if the word has been

505

00:20:28,000 --> 00:20:31,600

identified so in other words for

506

00:20:29,710 --> 00:20:33,940

orthographic mapping to work you need to

507

00:20:31,600 --> 00:20:35,290

begin with the pronunciation you need to

508

00:20:33,940 --> 00:20:37,750

know what the word in front of you

509

00:20:35,290 --> 00:20:40,330

actually says whether you sounded it out

510

00:20:37,750 --> 00:20:43,480

on your own whether you guessed at it

511

00:20:40,330 --> 00:20:44,950

whether the teacher told you the fact is

512

00:20:43,480 --> 00:20:46,740

you're looking at a word and you know

513

00:20:44,950 --> 00:20:48,820

what the pronunciation of that word is

514

00:20:46,740 --> 00:20:50,830

we know from the self-teaching

515

00:20:48,820 --> 00:20:52,720

hypothesis that the most efficient way

516

00:20:50,830 --> 00:20:56,440

to go about that is by sounding out the

517

00:20:52,720 --> 00:20:58,420

word the pronunciation the spoken word

518

00:20:56,440 --> 00:21:01,179

is then mapped on to that letter

519

00:20:58,420 --> 00:21:03,610

sequence the flow of information is from

520

00:21:01,179 --> 00:21:06,790

phonology to orthography from brain to

521

00:21:03,610 --> 00:21:10,480

text opposite direction from phonic

522

00:21:06,790 --> 00:21:12,340

decoding once again orthographic mapping

523

00:21:10,480 --> 00:21:13,860

is truly interactive the flow of

524

00:21:12,340 --> 00:21:17,800

information is in both directions

525

00:21:13,860 --> 00:21:19,929

however i'm emphasizing the direction of

526

00:21:17,800 --> 00:21:22,840

the flow of information that most people

527

00:21:19,929 --> 00:21:24,520

are not familiar with orthographic

528

00:21:22,840 --> 00:21:26,320

mapping is about remembering a word not

529

00:21:24,520 --> 00:21:28,510

about identifying a word so it functions

530

00:21:26,320 --> 00:21:31,600

very differently than phonic decoding

531

00:21:28,510 --> 00:21:33,400

and this mapping is only efficient if

532

00:21:31,600 --> 00:21:35,950

the phoneme level at the letter level

533

00:21:33,400 --> 00:21:39,040

you have to be able to attach phonemes

534

00:21:35,950 --> 00:21:40,720

to sequences it's not enough to have

535

00:21:39,040 --> 00:21:42,700

good phonological awareness in terms of

536

00:21:40,720 --> 00:21:45,490

syllable awareness or rhyming or all

537

00:21:42,700 --> 00:21:47,350

these others those are all earlier level

538

00:21:45,490 --> 00:21:48,970

phonological skills that lead eventually

539

00:21:47,350 --> 00:21:52,570

to phoneme level

540

00:21:48,970 --> 00:21:54,429

analysis eventually orthographic

541

00:21:52,570 --> 00:21:57,159

patterns get mapped in the same way that

542

00:21:54,429 --> 00:21:57,669

words do you look at a few examples

543

00:21:57,159 --> 00:22:01,090

there

544

00:21:57,669 --> 00:22:03,850

-IGHT and –tion, etc as well as rhyme

545

00:22:01,090 --> 00:22:05,559

units prefixes suffixes etc and that

546

00:22:03,850 --> 00:22:07,030

helps speeds the process of adding new

547

00:22:05,559 --> 00:22:09,070

words to your sight vocabularies

548

00:22:07,030 --> 00:22:12,789

children track through they don't have

549

00:22:09,070 --> 00:22:14,620

to reconnect ight to I G H T HT to that

550

00:22:12,789 --> 00:22:17,610

pronunciation ight because it becomes

551

00:22:14,620 --> 00:22:20,230

familiar sub word patterns meaning

552

00:22:17,610 --> 00:22:22,780

patterns of letters that are less than a

553

00:22:20,230 --> 00:22:25,150

whole word get mapped together we know

554

00:22:22,780 --> 00:22:26,559

that from studies where children from

555

00:22:25,150 --> 00:22:28,360

about third grade on that are good

556

00:22:26,559 --> 00:22:31,929

readers you give them a nonsense word

557

00:22:28,360 --> 00:22:33,490

like N A L K and they will say nalk why

558

00:22:31,929 --> 00:22:36,720

because they've already mapped together

559

00:22:33,490 --> 00:22:39,190

the ALK from chalk and walk and talk

560

00:22:36,720 --> 00:22:41,350

that's an orthographic memory of that

561

00:22:39,190 --> 00:22:43,270

particular pattern but you try that with

562

00:22:41,350 --> 00:22:45,669

a first grader or week or second grader

563

00:22:43,270 --> 00:22:50,169

and they're gonna say nelk they're gonna

564

00:22:45,669 --> 00:22:52,120

try to go letter by letter these mapping

565

00:22:50,169 --> 00:22:54,760

patterns presume a previous phoneme

566

00:22:52,120 --> 00:22:57,850

level mapping of those patterns so when

567

00:22:54,760 --> 00:22:59,500

a person learned the ALK now that's a

568

00:22:57,850 --> 00:23:01,600

little bit tricky in terms of its

569

00:22:59,500 --> 00:23:05,860

regularity but it's no different than a

570

00:23:01,600 --> 00:23:07,090

knight or a son as you see there we'll

571

00:23:05,860 --> 00:23:11,590

talk about the irregularities

572

00:23:07,090 --> 00:23:14,169

momentarily what are the skills needed

573

00:23:11,590 --> 00:23:16,510

for orthographic mapping well there are

574

00:23:14,169 --> 00:23:18,309

two foundational skills I believe that

575

00:23:16,510 --> 00:23:19,750

are necessary for orthographic mapping

576

00:23:18,309 --> 00:23:22,840

skilled readers have both of these

577

00:23:19,750 --> 00:23:25,510

foundational skills weak readers usually

578

00:23:22,840 --> 00:23:27,669

lack both of them they may have one of

579

00:23:25,510 --> 00:23:29,470

them but typically lack both of them so

580

00:23:27,669 --> 00:23:31,510

a compromise in these two skills is

581

00:23:29,470 --> 00:23:33,820

going to make it so that the ability to

582

00:23:31,510 --> 00:23:37,299

add words to the sight vocabulary is also

583

00:23:33,820 --> 00:23:39,150

compromised the two key skills needed

584

00:23:37,299 --> 00:23:41,860

for efficient orthographic mapping are

585

00:23:39,150 --> 00:23:43,860

letter-sound proficiency and phoneme

586

00:23:41,860 --> 00:23:48,309

proficiency let me explain each of those

587

00:23:43,860 --> 00:23:50,080

if you have a first grader toward the

588

00:23:48,309 --> 00:23:54,250

end of the first grade year who's on

589

00:23:50,080 --> 00:23:56,740

target look at a CVC that's consonant

590

00:23:54,250 --> 00:23:59,830

vowel consonant nonsense word they will

591

00:23:56,740 --> 00:24:02,190

respond instantly so if you show them

592

00:23:59,830 --> 00:24:03,809

 M I P they are going to say mip

593

00:24:02,190 --> 00:24:06,179

and it's almost gonna seem like it's as

594

00:24:03,809 --> 00:24:10,980

fast as if it were a real word like sit

595

00:24:06,179 --> 00:24:13,950

or hat but the reality is that child was

596

00:24:10,980 --> 00:24:15,360

able to retrieve the sound for the M

597

00:24:13,950 --> 00:24:17,820

the sound for the I the sound for the

598

00:24:15,360 --> 00:24:20,120

P and blend those three together all in

599

00:24:17,820 --> 00:24:23,879

a second or maybe even less

600

00:24:20,120 --> 00:24:25,169

that's letter-sound proficiency now if

601

00:24:23,879 --> 00:24:28,490

you have a child at the end of first

602

00:24:25,169 --> 00:24:31,620

grade who looks at MIP and says /M/ /I/ /P/

603

00:24:28,490 --> 00:24:34,409

MIP believe it or not he's already

604

00:24:31,620 --> 00:24:35,460

behind he not drastically behind because

605

00:24:34,409 --> 00:24:36,840

there are plenty of children that

606

00:24:35,460 --> 00:24:39,330

struggle in reading that couldn't even

607

00:24:36,840 --> 00:24:40,889

do that but the idea is this child's

608

00:24:39,330 --> 00:24:42,690

several months behind in terms of

609

00:24:40,889 --> 00:24:45,690

reading cuz that's more of an early to

610

00:24:42,690 --> 00:24:48,240

mid first grade level skill so that

611

00:24:45,690 --> 00:24:50,009

second child had letter-sound knowledge

612

00:24:48,240 --> 00:24:53,309

but didn't have letter-sound proficiency

613

00:24:50,009 --> 00:24:54,570

it was not quick and instantaneous now

614

00:24:53,309 --> 00:24:57,299

let's go back to that first child who

615

00:24:54,570 --> 00:24:59,870

responded instantly to mip had you given

616

00:24:57,299 --> 00:25:03,990

him splank he probably would have said

617

00:24:59,870 --> 00:25:05,159

splank because there was a blend at the

618

00:25:03,990 --> 00:25:07,860

beginning in the end it's a bit more

619

00:25:05,159 --> 00:25:09,179

complex however by the end of second

620

00:25:07,860 --> 00:25:11,399

grade that student will look at splank

621

00:25:09,179 --> 00:25:12,960

and say splank instantly that's because

622

00:25:11,399 --> 00:25:15,480

the letter some proficiency improved

623

00:25:12,960 --> 00:25:17,330

between the end of first grade and the

624

00:25:15,480 --> 00:25:20,820

end of second grade

625

00:25:17,330 --> 00:25:23,970

so that's letter-sound proficiency the

626

00:25:20,820 --> 00:25:26,580

basic point is that the child did not

627

00:25:23,970 --> 00:25:28,679

put conscious effort into retrieving the

628

00:25:26,580 --> 00:25:31,110

sound of the M or the sound of the I or

629

00:25:28,679 --> 00:25:34,500

the sound of the P it was unconscious

630

00:25:31,110 --> 00:25:37,860

automatic behind the scenes now let's

631

00:25:34,500 --> 00:25:40,470

talk about phoneme proficiency if you do

632

00:25:37,860 --> 00:25:41,879

a phonological awareness test with

633

00:25:40,470 --> 00:25:43,950

children usually they're going to start

634

00:25:41,879 --> 00:25:45,990

out with easy items say baseball but

635

00:25:43,950 --> 00:25:48,389

don't say base and work up to some

636

00:25:45,990 --> 00:25:51,539

somewhat more difficult items say say

637

00:25:48,389 --> 00:25:53,309

hat without the /h/at and then you get to

638

00:25:51,539 --> 00:25:55,470

some of the more difficult items and if

639

00:25:53,309 --> 00:25:56,789

you do that with a child at about the

640

00:25:55,470 --> 00:25:58,769

end of second grade or beginning of

641

00:25:56,789 --> 00:26:00,629

third grade who's on target for reading

642

00:25:58,769 --> 00:26:03,179

this is what you're going to get you're

643

00:26:00,629 --> 00:26:04,740

gonna say to them say fly fly now say it

644

00:26:03,179 --> 00:26:08,279

again but instead /l/ say /r/ and

645

00:26:04,740 --> 00:26:10,950

they're gonna say fry in one second now

646

00:26:08,279 --> 00:26:14,039

think about what that child had to do to

647

00:26:10,950 --> 00:26:15,990

properly respond to that item the child

648

00:26:14,039 --> 00:26:18,330

had to do four classic phonological

649

00:26:15,990 --> 00:26:20,490

awareness tasks all in one second

650

00:26:18,330 --> 00:26:22,670

or less first of all the child had to

651

00:26:20,490 --> 00:26:24,780

segment fly into its individual parts

652

00:26:22,670 --> 00:26:26,850

then the child that's phoneme

653

00:26:24,780 --> 00:26:29,190

segmentation then the child had to do

654

00:26:26,850 --> 00:26:30,750

what's called phoneme isolation which is

655

00:26:29,190 --> 00:26:32,309

to try to figure out where the target

656

00:26:30,750 --> 00:26:33,780

sound is in the word is at the beginning

657

00:26:32,309 --> 00:26:35,760

middle and end oh there it is in the

658

00:26:33,780 --> 00:26:37,679

middle then the child did phoneme

659

00:26:35,760 --> 00:26:40,230

manipulation pulled out the /l/ and put

660

00:26:37,679 --> 00:26:42,090

in /r/ then the child did phoneme

661

00:26:40,230 --> 00:26:44,010

blending blended the sounds that were

662

00:26:42,090 --> 00:26:47,940

left over and said fry so that child

663

00:26:44,010 --> 00:26:50,160

went from fly to fry in under a second

664

00:26:47,940 --> 00:26:52,170

the question becomes do you think that

665

00:26:50,160 --> 00:26:55,320

child put any conscious effort into

666

00:26:52,170 --> 00:26:57,960

segmenting the word fly I would contend

667

00:26:55,320 --> 00:27:00,710

that the answer is no that all happened

668

00:26:57,960 --> 00:27:02,360

automatically in the background and

669

00:27:00,710 --> 00:27:05,400

effortlessly

670

00:27:02,360 --> 00:27:07,770

so that's phoneme proficiency

671

00:27:05,400 --> 00:27:10,010

proficiency means a child has access to

672

00:27:07,770 --> 00:27:11,910

the individual phonemes and a word

673

00:27:10,010 --> 00:27:13,110

automatically in the background without

674

00:27:11,910 --> 00:27:15,690

even thinking about it

675

00:27:13,110 --> 00:27:18,900

so this is how we put these two together

676

00:27:15,690 --> 00:27:21,540

to understand orthographic mapping let's

677

00:27:18,900 --> 00:27:24,870

go back for a minute to a slide we saw

678

00:27:21,540 --> 00:27:29,610

earlier about mapping transparent words

679

00:27:24,870 --> 00:27:32,190

so here a student sees a word they sound

680

00:27:29,610 --> 00:27:34,679

it out they activate it during this

681

00:27:32,190 --> 00:27:36,660

process when that child sees the word

682

00:27:34,679 --> 00:27:38,760

win for the first time it's probably in

683

00:27:36,660 --> 00:27:41,250

a sentence or a paragraph and that child

684

00:27:38,760 --> 00:27:43,410

is thinking about the meaning the child

685

00:27:41,250 --> 00:27:46,559

is not spending time doing conscientious

686

00:27:43,410 --> 00:27:48,440

word study however if that child's

687

00:27:46,559 --> 00:27:51,929

phoneme awareness our analysis is

688

00:27:48,440 --> 00:27:53,550

automatic and behind the scenes and they

689

00:27:51,929 --> 00:27:55,020

give no thought to it it just happens

690

00:27:53,550 --> 00:27:57,660

because they've developed that level of

691

00:27:55,020 --> 00:27:59,990

phoneme skills that phoneme proficiency

692

00:27:57,660 --> 00:28:03,030

is I'm calling it guess what happens

693

00:27:59,990 --> 00:28:08,190

once win is activated they're able to

694

00:28:03,030 --> 00:28:10,470

apply the segmentation to win behind the

695

00:28:08,190 --> 00:28:12,929

scenes as you just saw there and they're

696

00:28:10,470 --> 00:28:15,330

also able to then take that segmented

697

00:28:12,929 --> 00:28:17,670

form of the word win and connect it up

698

00:28:15,330 --> 00:28:20,340

with the printed form of the word win

699

00:28:17,670 --> 00:28:22,860

without much conscious effort at all and

700

00:28:20,340 --> 00:28:25,260

in many cases no conscious effort once

701

00:28:22,860 --> 00:28:27,150

again do you remember storing thirty

702

00:28:25,260 --> 00:28:28,770

forty fifty thousand words I know I

703

00:28:27,150 --> 00:28:30,450

don't remember that

704

00:28:28,770 --> 00:28:32,340

certainly we all remember some tough

705

00:28:30,450 --> 00:28:35,490

words but for the most part this all

706

00:28:32,340 --> 00:28:37,500

happened in the background so if there's

707

00:28:35,490 --> 00:28:39,270

any doubt in your mind that it has to

708

00:28:37,500 --> 00:28:41,970

happen in the background like that I

709

00:28:39,270 --> 00:28:46,350

think some simple logic that you would

710

00:28:41,970 --> 00:28:48,090

get from a philosophy 101 class we know

711

00:28:46,350 --> 00:28:50,309

from our own experience as well as from

712

00:28:48,090 --> 00:28:53,130

research studies that learning new words

713

00:28:50,309 --> 00:28:54,330

is largely implicit in other words it

714

00:28:53,130 --> 00:28:56,040

happens in the background its

715

00:28:54,330 --> 00:28:57,360

unconscious we're not putting conscious

716

00:28:56,040 --> 00:28:58,710

effort into remembering the word we're

717

00:28:57,360 --> 00:29:00,240

not saying oh here's a new word I've

718

00:28:58,710 --> 00:29:03,120

come across that how am I gonna remember

719

00:29:00,240 --> 00:29:06,150

this it happens quite naturally as we

720

00:29:03,120 --> 00:29:08,809

read after just a few exposures so if

721

00:29:06,150 --> 00:29:11,520

the process of remembering words is

722

00:29:08,809 --> 00:29:13,980

automatic and effortless and in the

723

00:29:11,520 --> 00:29:15,660

background then that means the skills

724

00:29:13,980 --> 00:29:19,559

that underlie it by their very nature

725

00:29:15,660 --> 00:29:22,770

have to be automatic and unconscious and

726

00:29:19,559 --> 00:29:24,600

in the background so even if we never

727

00:29:22,770 --> 00:29:27,000

did a study on this you would have to

728

00:29:24,600 --> 00:29:30,080

infer that the letter-sound skills and

729

00:29:27,000 --> 00:29:33,330

the phoneme skills would have to be

730

00:29:30,080 --> 00:29:39,330

automatic and unconscious and indeed

731

00:29:33,330 --> 00:29:40,620

there's evidence that that's the case as

732

00:29:39,330 --> 00:29:42,150

a result I would like to make a

733

00:29:40,620 --> 00:29:44,550

distinction between knowledge and

734

00:29:42,150 --> 00:29:46,800

proficiency we need to move away from

735

00:29:44,550 --> 00:29:49,080

these two terms letter sound knowledge

736

00:29:46,800 --> 00:29:51,179

and phonological awareness I have tested

737

00:29:49,080 --> 00:29:52,860

many struggling students who you give

738

00:29:51,179 --> 00:29:55,140

them an item like I just mentioned

739

00:29:52,860 --> 00:30:00,660

earlier say say fly fl I'll say it

740

00:29:55,140 --> 00:30:01,980

again instead of a /l/ say /r/ fry so

741

00:30:00,660 --> 00:30:04,440

they're gonna come back three four five

742

00:30:01,980 --> 00:30:06,540

seconds later I've done this with fourth

743

00:30:04,440 --> 00:30:10,500

graders fifth graders tenth graders

744

00:30:06,540 --> 00:30:11,790

adults and technically speaking you

745

00:30:10,500 --> 00:30:15,210

would say they have phonological

746

00:30:11,790 --> 00:30:18,320

awareness but you may have a second or

747

00:30:15,210 --> 00:30:20,820

third grader who's a skilled reader and

748

00:30:18,320 --> 00:30:24,000

you do that and they respond instantly

749

00:30:20,820 --> 00:30:25,860

in one case phoneme awareness is

750

00:30:24,000 --> 00:30:27,210

displayed in another case phoneme

751

00:30:25,860 --> 00:30:28,890

proficiency is displayed

752

00:30:27,210 --> 00:30:31,380

same thing with letter sound knowledge

753

00:30:28,890 --> 00:30:34,490

that second child in the illustration I

754

00:30:31,380 --> 00:30:36,809

gave with mip that child that went /m/ /i/ /p/

755

00:30:34,490 --> 00:30:38,520

mip that child has letter sound

756

00:30:36,809 --> 00:30:40,650

knowledge but doesn't have letter sound

757

00:30:38,520 --> 00:30:43,320

proficiency that child's reading is

758

00:30:40,650 --> 00:30:44,820

already behind so instead we need to

759

00:30:43,320 --> 00:30:46,860

replace these terms with letter sound

760

00:30:44,820 --> 00:30:49,140

proficiency and phonemic proficiency

761

00:30:46,860 --> 00:30:51,300

because that's what seems to drive the

762

00:30:49,140 --> 00:30:53,460

mapping process it's not enough to just

763

00:30:51,300 --> 00:30:55,020

have knowledge about the letters and be

764

00:30:53,460 --> 00:30:57,330

able to come up with it with some

765

00:30:55,020 --> 00:31:01,080

conscious effort it has to be instant

766

00:30:57,330 --> 00:31:04,470

and automatic because learning 40,000

767

00:31:01,080 --> 00:31:05,910

words requires you to pay attention to

768

00:31:04,470 --> 00:31:07,440

what you're reading and as you come

769

00:31:05,910 --> 00:31:09,870

across new words in print

770

00:31:07,440 --> 00:31:11,280

you are not directing undue attention to

771

00:31:09,870 --> 00:31:13,110

it it's happening in the background

772

00:31:11,280 --> 00:31:15,900

and when you consider the sight word

773

00:31:13,110 --> 00:31:17,809

explosion that occurs in late second

774

00:31:15,900 --> 00:31:19,950

into third grade children go from

775

00:31:17,809 --> 00:31:21,600

knowing hundreds and hundreds of words

776

00:31:19,950 --> 00:31:23,940

to suddenly knowing thousands of words

777

00:31:21,600 --> 00:31:25,950

they are not putting lots of conscious

778

00:31:23,940 --> 00:31:28,890

effort into storing those words rather

779

00:31:25,950 --> 00:31:30,960

the background skills of letter-sound

780

00:31:28,890 --> 00:31:33,750

proficiency and phonemic proficiency are

781

00:31:30,960 --> 00:31:35,669

now in place the mechanics are ready to

782

00:31:33,750 --> 00:31:37,770

go and they are adding words of a site

783

00:31:35,669 --> 00:31:41,010

vocabulary in a sponge-like fashion as

784

00:31:37,770 --> 00:31:42,929

researchers refer to it we have to

785

00:31:41,010 --> 00:31:46,559

realize that knowledge does not presume

786

00:31:42,929 --> 00:31:47,809

automaticity or proficiency whether it's

787

00:31:46,559 --> 00:31:50,490

letter-sound knowledge or phonological

788

00:31:47,809 --> 00:31:53,010

knowledge and awareness doesn't presume

789

00:31:50,490 --> 00:31:55,169

automaticity and proficiency like the

790

00:31:53,010 --> 00:31:57,380

examples I gave earlier and I think this

791

00:31:55,169 --> 00:31:59,820

is a very important point because I have

792

00:31:57,380 --> 00:32:02,220

personally done evaluations of many

793

00:31:59,820 --> 00:32:04,980

children who might be characterized as

794

00:32:02,220 --> 00:32:07,530

having decent phonological awareness but

795

00:32:04,980 --> 00:32:09,870

their reaction to those items is very

796

00:32:07,530 --> 00:32:11,580

slow they do not display phonemic

797

00:32:09,870 --> 00:32:13,830

proficiency and they struggle in reading

798

00:32:11,580 --> 00:32:16,050

and the sad part is the recommendation

799

00:32:13,830 --> 00:32:18,150

we make and certainly the recommendation

800

00:32:16,050 --> 00:32:20,910

I made the first few years before I

801

00:32:18,150 --> 00:32:22,440

figured this out was to say hey this

802

00:32:20,910 --> 00:32:24,780

child has perfectly fine phonemic

803

00:32:22,440 --> 00:32:26,700

awareness he got all the items correct

804

00:32:24,780 --> 00:32:29,460

even though there were very slow

805

00:32:26,700 --> 00:32:31,890

responses and yet in such cases the

806

00:32:29,460 --> 00:32:34,650

child does not have sufficient phonemic

807

00:32:31,890 --> 00:32:39,120

skills to be good at orthographic

808

00:32:34,650 --> 00:32:40,590

mapping there are many formal logical

809

00:32:39,120 --> 00:32:42,270

awareness tests that are not sensitive

810

00:32:40,590 --> 00:32:44,250

to the phonemic underpinnings of the

811

00:32:42,270 --> 00:32:45,929

reading process they may be sensitive to

812

00:32:44,250 --> 00:32:47,730

the phonemic underpinnings up to that

813

00:32:45,929 --> 00:32:50,580

ending first-grade level

814

00:32:47,730 --> 00:32:52,800

a blending test in a segmenting test but

815

00:32:50,580 --> 00:32:55,740

phoneme segmentation tests by their very

816

00:32:52,800 --> 00:32:58,020

nature are incapable of telling you if

817

00:32:55,740 --> 00:32:59,730

the person has segmentation proficiency

818

00:32:58,020 --> 00:33:02,490

when you stop and think about it when we

819

00:32:59,730 --> 00:33:04,770

saw how orthographic mapping works

820

00:33:02,490 --> 00:33:07,230

the only phonemes skill you needed was

821

00:33:04,770 --> 00:33:09,600

segmentation yeah I gave you a

822

00:33:07,230 --> 00:33:12,060

manipulation example going from fly to

823

00:33:09,600 --> 00:33:14,430

fry when we read and spell we don't

824

00:33:12,060 --> 00:33:16,230

manipulate letters or sounds and the

825

00:33:14,430 --> 00:33:18,390

reality is Ehri’s theory says that you

826

00:33:16,230 --> 00:33:20,250

need to be able to segment but you need

827

00:33:18,390 --> 00:33:22,350

to be able to segment instantly

828

00:33:20,250 --> 00:33:25,680

automatically and in the background a

829

00:33:22,350 --> 00:33:27,600

segmentation task is incapable by its

830

00:33:25,680 --> 00:33:31,260

very nature of telling you if you have

831

00:33:27,600 --> 00:33:33,180

that level of proficiency why well you

832

00:33:31,260 --> 00:33:34,740

give a child a segmentation tasking you

833

00:33:33,180 --> 00:33:36,690

say to them let's take a word like blend

834

00:33:34,740 --> 00:33:37,980

blend is a good example because it has a

835

00:33:36,690 --> 00:33:39,420

blend at the beginning it's a little bit

836

00:33:37,980 --> 00:33:40,710

complex and you say to a child tell me

837

00:33:39,420 --> 00:33:45,540

all the sounds and blend and they say

838

00:33:40,710 --> 00:33:47,820

/b/l/e/n/d/ you say great now if that child did

839

00:33:45,540 --> 00:33:49,830

it very slowly you can feel confident

840

00:33:47,820 --> 00:33:51,990

that they don't have phoneme proficiency

841

00:33:49,830 --> 00:33:53,940

but if the child does it quickly you

842

00:33:51,990 --> 00:33:56,820

don't know if the child just computed

843

00:33:53,940 --> 00:34:00,210

that at the moment or if that child

844

00:33:56,820 --> 00:34:02,580

truly has unconscious access to those

845

00:34:00,210 --> 00:34:05,070

phonemes why because it's a conscious

846

00:34:02,580 --> 00:34:08,220

task you just ask them to segment the

847

00:34:05,070 --> 00:34:11,310

word blend in other words if you're

848

00:34:08,220 --> 00:34:13,500

having the child do a conscious task you

849

00:34:11,310 --> 00:34:16,280

don't know if the response is based on

850

00:34:13,500 --> 00:34:19,830

conscious effort that's very quick maybe

851

00:34:16,280 --> 00:34:21,540

or whether it's unconscious effort that

852

00:34:19,830 --> 00:34:23,700

the child just was able to get access

853

00:34:21,540 --> 00:34:25,980

this but stop and think about that

854

00:34:23,700 --> 00:34:28,380

manipulation task think about how that

855

00:34:25,980 --> 00:34:31,260

child in one second did four classic

856

00:34:28,380 --> 00:34:35,670

phonological awareness tasks so that

857

00:34:31,260 --> 00:34:37,680

child able to segment in on average 1/4

858

00:34:35,670 --> 00:34:39,510

of a second that gives me a lot of

859

00:34:37,680 --> 00:34:41,400

confidence that that's automatic and

860

00:34:39,510 --> 00:34:43,320

it's not something the child put any

861

00:34:41,400 --> 00:34:45,660

conscious effort into so that's the

862

00:34:43,320 --> 00:34:48,750

irony of this really what kids need to

863

00:34:45,660 --> 00:34:51,390

be able to do is segment to attach the

864

00:34:48,750 --> 00:34:53,700

sounds within the pronunciation to the

865

00:34:51,390 --> 00:34:56,460

letter strings but yet a segmentation

866

00:34:53,700 --> 00:34:58,230

task cannot tell you if the child has

867

00:34:56,460 --> 00:35:01,560

segmentation proficiency or what I'm

868

00:34:58,230 --> 00:35:03,720

calling phonemic proficiency rather a

869

00:35:01,560 --> 00:35:06,300

manipulation tasks not just a manipulation

870

00:35:03,720 --> 00:35:08,310

task but an instant response to a

871

00:35:06,300 --> 00:35:09,030

manipulation tasks say clap without the

872

00:35:08,310 --> 00:35:11,280

/l/ cap

873

00:35:09,030 --> 00:35:13,110

child comes back instantly the child

874

00:35:11,280 --> 00:35:17,160

just performed for classic phonological

875

00:35:13,110 --> 00:35:19,830

awareness tasks in order to do that so

876

00:35:17,160 --> 00:35:21,030

the best assessments that we have for

877

00:35:19,830 --> 00:35:23,220

the key skills that underlie

878

00:35:21,030 --> 00:35:25,770

orthographic mapping are first and

879

00:35:23,220 --> 00:35:29,340

foremost timed nonsense word reading

880

00:35:25,770 --> 00:35:31,320

subtests why is that well because that's

881

00:35:29,340 --> 00:35:34,050

going to let us know how proficient the

882

00:35:31,320 --> 00:35:37,380

letter sound skills are the second thing

883

00:35:34,050 --> 00:35:39,750

is we need a phonological awareness

884

00:35:37,380 --> 00:35:41,340

tasks with a timing element such as the

885

00:35:39,750 --> 00:35:43,260

phonological awareness screening test

886

00:35:41,340 --> 00:35:45,900

the great thing about the phonological

887

00:35:43,260 --> 00:35:48,240

awareness screening test is it is free and

888

00:35:45,900 --> 00:35:51,030

there are multiple versions of it so you

889

00:35:48,240 --> 00:35:53,400

can give it to children and do some

890

00:35:51,030 --> 00:35:55,620

progress monitoring now it's called the

891

00:35:53,400 --> 00:35:57,090

past there's another test that floats

892

00:35:55,620 --> 00:35:58,860

around there that's also free called the

893

00:35:57,090 --> 00:36:01,770

phonological awareness skills test it does

894

00:35:58,860 --> 00:36:03,720

not have this timing element as of this

895

00:36:01,770 --> 00:36:06,060

particular time that I'm developing this

896

00:36:03,720 --> 00:36:08,610

series of webinars the only test I know

897

00:36:06,060 --> 00:36:10,890

of that gives you information about the

898

00:36:08,610 --> 00:36:12,540

instant response to individual items is

899

00:36:10,890 --> 00:36:13,610

the phonological awareness screening

900

00:36:12,540 --> 00:36:15,930

test

901

00:36:13,610 --> 00:36:19,320

what about irregular words this whole

902

00:36:15,930 --> 00:36:21,360

mapping process well both irregular

903

00:36:19,320 --> 00:36:23,940

words and opaque words might take longer

904

00:36:21,360 --> 00:36:26,040

to learn I say it may take longer might

905

00:36:23,940 --> 00:36:27,900

take longer because we don't really have

906

00:36:26,040 --> 00:36:31,920

any research that I know of that

907

00:36:27,900 --> 00:36:33,990

addresses that question maybe it takes

908

00:36:31,920 --> 00:36:35,400

one to two extra exposures instead of

909

00:36:33,990 --> 00:36:37,680

one to four exposures maybe you're

910

00:36:35,400 --> 00:36:40,710

talking you know two to six exposures

911

00:36:37,680 --> 00:36:42,270

but we do know that it takes many more

912

00:36:40,710 --> 00:36:45,810

exposures for kids with reading

913

00:36:42,270 --> 00:36:47,460

disabilities represented there's Rd most

914

00:36:45,810 --> 00:36:50,130

irregular words are only off by one

915

00:36:47,460 --> 00:36:51,960

letter sound element so take for example

916

00:36:50,130 --> 00:36:53,820

the words said you say well that's off

917

00:36:51,960 --> 00:36:56,520

by two letters no it's really off by one

918

00:36:53,820 --> 00:36:58,590

letter sound connection the /a/ in

919

00:36:56,520 --> 00:36:59,430

said you would expect it to be an e an

920

00:36:58,590 --> 00:37:01,920

short e

921

00:36:59,430 --> 00:37:03,660

so it would be SED but instead the AI is

922

00:37:01,920 --> 00:37:05,580

doing something it doesn't ordinarily do

923

00:37:03,660 --> 00:37:08,730

and then you have the same situation

924

00:37:05,580 --> 00:37:11,220

going on with put it's not you know we

925

00:37:08,730 --> 00:37:12,630

would say putt and there is a word putt

926

00:37:11,220 --> 00:37:14,230

but there's a t there and it has to do

927

00:37:12,630 --> 00:37:17,530

with golf so

928

00:37:14,230 --> 00:37:20,349

most irregular words are only off by one

929

00:37:17,530 --> 00:37:22,359

element and we make adjustments but

930

00:37:20,349 --> 00:37:24,339

notice the word comb they're like the

931

00:37:22,359 --> 00:37:25,900

word make you're still using an

932

00:37:24,339 --> 00:37:28,150

adjustment so the word make is regular

933

00:37:25,900 --> 00:37:30,180

the word comb is irregular but in both

934

00:37:28,150 --> 00:37:32,260

cases you have to make an adjustment and

935

00:37:30,180 --> 00:37:36,070

indicate that there's one letter that's

936

00:37:32,260 --> 00:37:38,710

silent and it's very rare that words

937

00:37:36,070 --> 00:37:40,500

have multiple via violations some of the

938

00:37:38,710 --> 00:37:42,940

most common ones you see right there and

939

00:37:40,500 --> 00:37:44,530

if you want to look at others you have

940

00:37:42,940 --> 00:37:45,940

to go beyond the earliest level of

941

00:37:44,530 --> 00:37:48,990

reading things that first and second

942

00:37:45,940 --> 00:37:51,670

graders are not likely to be exposed to

943

00:37:48,990 --> 00:37:54,010

interestingly irregular words are not a

944

00:37:51,670 --> 00:37:56,310

challenge for orthographic mapping they

945

00:37:54,010 --> 00:37:58,930

are a challenge for phonic decoding why

946

00:37:56,310 --> 00:38:00,490

because with phonic decoding you don't

947

00:37:58,930 --> 00:38:02,440

know what the word is and you're given

948

00:38:00,490 --> 00:38:04,839

inaccurate information and trying to

949

00:38:02,440 --> 00:38:07,089

figure it out but with mapping it's a

950

00:38:04,839 --> 00:38:08,980

completely different phenomenon with

951

00:38:07,089 --> 00:38:10,930

mapping you know the pronounciation

952

00:38:08,980 --> 00:38:12,250

you're looking at the word and you're

953

00:38:10,930 --> 00:38:14,440

looking at the word island and

954

00:38:12,250 --> 00:38:18,160

immediately recognizing hey there's an S

955

00:38:14,440 --> 00:38:20,650

there and it's silent and so you map

956

00:38:18,160 --> 00:38:23,079

that pronunciation on to that particular

957

00:38:20,650 --> 00:38:25,930

letter sequence so the difference

958

00:38:23,079 --> 00:38:27,609

between mapping and phonic decoding in

959

00:38:25,930 --> 00:38:29,349

this case in terms of irregular words is

960

00:38:27,609 --> 00:38:30,910

in one case you already know the answer

961

00:38:29,349 --> 00:38:32,319

to the question which is you're looking

962

00:38:30,910 --> 00:38:34,480

at the word in front of you I know what

963

00:38:32,319 --> 00:38:35,859

the word is and I'm going to make a map

964

00:38:34,480 --> 00:38:37,660

between that pronunciation in that

965

00:38:35,859 --> 00:38:39,910

letter string so you take a word like

966

00:38:37,660 --> 00:38:42,550

put in you say hmm I would have guessed

967

00:38:39,910 --> 00:38:45,579

it p o o t based on the pronunciation but

968

00:38:42,550 --> 00:38:47,980

that's how we spell put okay I see how

969

00:38:45,579 --> 00:38:50,290

The /p/ at the beginning and the /t/ at the end and

970

00:38:47,980 --> 00:38:54,160

so we're gonna represent uh in this case

971

00:38:50,290 --> 00:38:56,920

with a u so mapping is far more flexible

972

00:38:54,160 --> 00:39:01,869

when it comes to irregular words than

973

00:38:56,920 --> 00:39:03,400

phonic decoding Linnea Ehri who was the

974

00:39:01,869 --> 00:39:05,530

developer the orthographic mapping

975

00:39:03,400 --> 00:39:07,390

theory says exception words are only

976

00:39:05,530 --> 00:39:09,220

exceptional when someone tries to read

977

00:39:07,390 --> 00:39:11,290

them by applying a phonic decoding

978

00:39:09,220 --> 00:39:12,880

strategy when they are learned as sight

979

00:39:11,290 --> 00:39:14,710

words they are secured in memory by the

980

00:39:12,880 --> 00:39:20,230

same connections as regularly spelled

981

00:39:14,710 --> 00:39:22,210

words let's probe a little bit more why

982

00:39:20,230 --> 00:39:24,329

this is not an issue for mapping there

983

00:39:22,210 --> 00:39:26,470

are many regular words that require

984

00:39:24,329 --> 00:39:28,100

adjustments for mapping like silent e

985

00:39:26,470 --> 00:39:30,380

words vowel digraphs

986

00:39:28,100 --> 00:39:33,200

gave those illustrations earlier also

987

00:39:30,380 --> 00:39:36,140

consonant digraphs they are all opaque

988

00:39:33,200 --> 00:39:39,920

so you see a word like she and you have

989

00:39:36,140 --> 00:39:41,960

two sounds /sh/ and /E/ and you have a diagraph

990

00:39:39,920 --> 00:39:45,830

at the beginning and you have to map the

991

00:39:41,960 --> 00:39:47,570

/SH/ on to two different letters many

992

00:39:45,830 --> 00:39:50,120

regular words that are multi syllabic

993

00:39:47,570 --> 00:39:54,800

have a vowel reduction in the non stress

994

00:39:50,120 --> 00:39:57,110

syllable and that's considered a regular

995

00:39:54,800 --> 00:39:59,860

word and yet we are able to map to that

996

00:39:57,110 --> 00:40:01,790

without a great deal of difficulty

997

00:39:59,860 --> 00:40:03,350

irregular words are not the cause of

998

00:40:01,790 --> 00:40:05,870

reading problems in English contrary to

999

00:40:03,350 --> 00:40:08,060

popular belief poor word level reading

1000

00:40:05,870 --> 00:40:09,560

is as common in what we call regular

1001

00:40:08,060 --> 00:40:11,870

orthographies that is those with

1002

00:40:09,560 --> 00:40:13,970

consistent letter sound relationships

1003

00:40:11,870 --> 00:40:16,550

like an Italian in Spanish and that's

1004

00:40:13,970 --> 00:40:18,110

due to poor orthographic mapping so in

1005

00:40:16,550 --> 00:40:19,880

those languages they get up to speed on

1006

00:40:18,110 --> 00:40:22,190

finally coding much more quickly and

1007

00:40:19,880 --> 00:40:24,290

easily and most of their struggling

1008

00:40:22,190 --> 00:40:26,180

readers eventually become good at fine

1009

00:40:24,290 --> 00:40:27,910

At phonic decoding but they don't remember the

1010

00:40:26,180 --> 00:40:31,580

words they read for the same reason as

1011

00:40:27,910 --> 00:40:33,320

kids struggle in English and so if the

1012

00:40:31,580 --> 00:40:36,410

irregularities prevented people from

1013

00:40:33,320 --> 00:40:38,060

learning to read the way people often

1014

00:40:36,410 --> 00:40:40,130

assume we would have this we would have

1015

00:40:38,060 --> 00:40:41,810

far more incidences of reading

1016

00:40:40,130 --> 00:40:43,760

difficulties in English than we do in

1017

00:40:41,810 --> 00:40:45,380

other languages and you may think that

1018

00:40:43,760 --> 00:40:47,450

that's the case but you're gonna have a

1019

00:40:45,380 --> 00:40:49,310

hard time finding any research to

1020

00:40:47,450 --> 00:40:53,360

support it and in fact we have a lot of

1021

00:40:49,310 --> 00:40:54,710

research to the contrary even regular

1022

00:40:53,360 --> 00:40:56,980

words were poorly represented in the

1023

00:40:54,710 --> 00:40:59,450

orthographic lexicons of poor readers

1024

00:40:56,980 --> 00:41:01,310

one final topic before we move on and

1025

00:40:59,450 --> 00:41:03,080

that is the issue of orthographic skills

1026

00:41:01,310 --> 00:41:05,120

just in the last few years I've noticed

1027

00:41:03,080 --> 00:41:06,920

in the school psychology field and I'm a

1028

00:41:05,120 --> 00:41:08,240

school psychologist I've noticed in the

1029

00:41:06,920 --> 00:41:10,310

educational field that people are

1030

00:41:08,240 --> 00:41:13,580

talking about orthographic skills and

1031

00:41:10,310 --> 00:41:16,010

orthographic processing however the

1032

00:41:13,580 --> 00:41:18,200

ideas that are floating around currently

1033

00:41:16,010 --> 00:41:20,120

are like about 10 years outdated in

1034

00:41:18,200 --> 00:41:22,190

terms of the research there was a great

1035

00:41:20,120 --> 00:41:24,620

review done in 2006 that I think really

1036

00:41:22,190 --> 00:41:25,910

had an impact on the field and allowed

1037

00:41:24,620 --> 00:41:29,240

us to understand where these

1038

00:41:25,910 --> 00:41:31,820

orthographic skills actually fit in the

1039

00:41:29,240 --> 00:41:33,530

four most common orthographic tasks used

1040

00:41:31,820 --> 00:41:35,840

to establish what people think of as

1041

00:41:33,530 --> 00:41:37,610

orthographic skills are the word

1042

00:41:35,840 --> 00:41:40,040

likeness tasks so you'll see a bunch of

1043

00:41:37,610 --> 00:41:41,040

pairs of words like LM K in a slash mark

1044

00:41:40,040 --> 00:41:42,780

in P I M

1045

00:41:41,040 --> 00:41:45,180

and you'll see a whole long list and

1046

00:41:42,780 --> 00:41:47,160

then children are supposed to circle the

1047

00:41:45,180 --> 00:41:49,440

one that's most like a word so in the

1048

00:41:47,160 --> 00:41:52,080

first case PIM is more like a word and

1049

00:41:49,440 --> 00:41:54,810

in the second case bapp is more like a

1050

00:41:52,080 --> 00:41:56,610

word and these are often under time

1051

00:41:54,810 --> 00:41:58,560

conditions and it turns out children

1052

00:41:56,610 --> 00:42:00,390

that are better at that type of task are

1053

00:41:58,560 --> 00:42:01,050

better readers then children who are is

1054

00:42:00,390 --> 00:42:03,180

good at it

1055

00:42:01,050 --> 00:42:05,970

another is what's called the homophone

1056

00:42:03,180 --> 00:42:07,530

or pseudo homophone task where you say

1057

00:42:05,970 --> 00:42:09,060

to a child you may have a picture of a

1058

00:42:07,530 --> 00:42:11,310

sailboat or whatever and the child has

1059

00:42:09,060 --> 00:42:13,260

to circle the first one or you may have

1060

00:42:11,310 --> 00:42:15,390

what's called pseudo homophones so BRE

1061

00:42:13,260 --> 00:42:18,060

NE is not actually a word but you have

1062

00:42:15,390 --> 00:42:20,880

to circle which one is the word and then

1063

00:42:18,060 --> 00:42:22,980

reading irregular words is a common task

1064

00:42:20,880 --> 00:42:25,080

used to assess orthographic skills and

1065

00:42:22,980 --> 00:42:26,940

spelling irregular words so you put

1066

00:42:25,080 --> 00:42:29,340

these all together and you see that they

1067

00:42:26,940 --> 00:42:33,090

all correlate with word reading skills

1068

00:42:29,340 --> 00:42:35,550

the problem is that correlation isn't

1069

00:42:33,090 --> 00:42:37,200

the same thing as causation in fact I

1070

00:42:35,550 --> 00:42:39,750

think we have a pretty good idea now of

1071

00:42:37,200 --> 00:42:42,210

how this all unfolds it seems that

1072

00:42:39,750 --> 00:42:44,130

orthographic knowledge or orthographic

1073

00:42:42,210 --> 00:42:46,770

processing as people may want to call it

1074

00:42:44,130 --> 00:42:49,190

is a byproduct of learning to read it's

1075

00:42:46,770 --> 00:42:52,610

not causal like letter sounds skills or

1076

00:42:49,190 --> 00:42:55,020

phoneme skills or causal for reading

1077

00:42:52,610 --> 00:42:56,550

orthographic skills result from reading

1078

00:42:55,020 --> 00:42:57,750

experience including statistical

1079

00:42:56,550 --> 00:42:59,370

learning statistical learning is

1080

00:42:57,750 --> 00:43:01,560

something that goes on in the background

1081

00:42:59,370 --> 00:43:02,790

for us we start to see patterns we start

1082

00:43:01,560 --> 00:43:06,030

noticing patterns even if not

1083

00:43:02,790 --> 00:43:08,960

consciously and also orthographic

1084

00:43:06,030 --> 00:43:11,550

mapping as I said in an earlier slide

1085

00:43:08,960 --> 00:43:15,000

orthographic mapping allows us to anchor

1086

00:43:11,550 --> 00:43:18,540

parts of words just like we anchor words

1087

00:43:15,000 --> 00:43:20,400

into long-term memory so that's how we

1088

00:43:18,540 --> 00:43:23,550

establish sub word patterns like the

1089

00:43:20,400 --> 00:43:24,900

ones you see here and many others so

1090

00:43:23,550 --> 00:43:27,090

current ideas that are floating around

1091

00:43:24,900 --> 00:43:29,370

about orthographic processing they seem

1092

00:43:27,090 --> 00:43:32,340

to imply that word learning is based on

1093

00:43:29,370 --> 00:43:35,220

some kind of visual memory is if tion or

1094

00:43:32,340 --> 00:43:38,010

ight is a visual memory well guess what

1095

00:43:35,220 --> 00:43:40,200

go back to module 2 and consider the

1096

00:43:38,010 --> 00:43:41,910

fact that IG HT could be presented in

1097

00:43:40,200 --> 00:43:43,650

many different fonts it could be

1098

00:43:41,910 --> 00:43:45,600

presented uppercase lowercase and they

1099

00:43:43,650 --> 00:43:47,430

all look very different but it's still

1100

00:43:45,600 --> 00:43:49,410

going to activate the same orthographic

1101

00:43:47,430 --> 00:43:51,660

memory so it's not the look of those

1102

00:43:49,410 --> 00:43:53,910

four letters it is the actual sequence

1103

00:43:51,660 --> 00:43:54,540

of those four letters that gets anchored

1104

00:43:53,910 --> 00:43:57,810

in our or

1105

00:43:54,540 --> 00:43:59,760

the graphic memory an intervention

1106

00:43:57,810 --> 00:44:01,170

recommendations based on this notion are

1107

00:43:59,760 --> 00:44:02,580

ineffective so some people say well

1108

00:44:01,170 --> 00:44:04,980

that's directly trained the orthographic

1109

00:44:02,580 --> 00:44:07,230

skills or let's have kids remember these

1110

00:44:04,980 --> 00:44:08,940

words based on visual memory and we have

1111

00:44:07,230 --> 00:44:10,920

no evidence to suggest that that works

1112

00:44:08,940 --> 00:44:13,140

and I think we have a lot of experience

1113

00:44:10,920 --> 00:44:16,530

evidence to show that kids don't catch

1114

00:44:13,140 --> 00:44:17,750

up with those types of interventions now

1115

00:44:16,530 --> 00:44:19,890

I realize this is a pretty heavy-duty

1116

00:44:17,750 --> 00:44:22,320

lesson and I realize the concept of

1117

00:44:19,890 --> 00:44:24,150

orthographic mapping is rather difficult

1118

00:44:22,320 --> 00:44:25,410

to grasp first time through and don't

1119

00:44:24,150 --> 00:44:27,600

panic if you didn't get it the first

1120

00:44:25,410 --> 00:44:30,930

time through I've been doing my best for

1121

00:44:27,600 --> 00:44:32,370

about the last 18 20 years of trying to

1122

00:44:30,930 --> 00:44:34,170

get people to understand this and I know

1123

00:44:32,370 --> 00:44:36,500

as I said I didn't get it the first time

1124

00:44:34,170 --> 00:44:39,120

through but let's try to summarize

1125

00:44:36,500 --> 00:44:40,590

orthographic learning results from an

1126

00:44:39,120 --> 00:44:42,930

interaction between the sounds and the

1127

00:44:40,590 --> 00:44:45,530

letters and written words it's not based

1128

00:44:42,930 --> 00:44:47,940

on any kind of visual memory process

1129

00:44:45,530 --> 00:44:49,740

orthographic mapping is the mental or

1130

00:44:47,940 --> 00:44:52,440

cognitive process used to store words

1131

00:44:49,740 --> 00:44:53,940

for instant retrieval this is how we

1132

00:44:52,440 --> 00:44:56,940

build our sight vocabulary through

1133

00:44:53,940 --> 00:44:58,470

orthographic mapping orthographic

1134

00:44:56,940 --> 00:45:00,750

mapping connects what is already known

1135

00:44:58,470 --> 00:45:02,160

which is the words pronunciation to what

1136

00:45:00,750 --> 00:45:05,430

we're trying to remember which is the

1137

00:45:02,160 --> 00:45:07,560

words spelling pattern and the process

1138

00:45:05,430 --> 00:45:10,350

is implicit so the reader is not

1139

00:45:07,560 --> 00:45:12,090

consciously trying to remember words it

1140

00:45:10,350 --> 00:45:14,250

just happens after one to four exposures

1141

00:45:12,090 --> 00:45:16,980

and so many of the research studies that

1142

00:45:14,250 --> 00:45:18,900

show this the child is reading a brand

1143

00:45:16,980 --> 00:45:21,630

new word in the context of a paragraph

1144

00:45:18,900 --> 00:45:24,360

it's not some isolated flashcard type of

1145

00:45:21,630 --> 00:45:26,040

approach and the critical skills needed

1146

00:45:24,360 --> 00:45:27,900

to be good at orthographic mapping or

1147

00:45:26,040 --> 00:45:31,380

letter-sound proficiency and phonemic

1148

00:45:27,900 --> 00:45:35,010

proficiency children that our good

1149

00:45:31,380 --> 00:45:36,510

readers have this I have given phonemic

1150

00:45:35,010 --> 00:45:38,940

proficiency and letter some proficiency

1151

00:45:36,510 --> 00:45:40,470

tasks to hundreds of children typically

1152

00:45:38,940 --> 00:45:42,660

developing children and research studies

1153

00:45:40,470 --> 00:45:44,670

I've given it to hundreds of children

1154

00:45:42,660 --> 00:45:47,400

that are disabled readers in real real

1155

00:45:44,670 --> 00:45:49,350

world school evaluations and it's quite

1156

00:45:47,400 --> 00:45:50,790

clear that good readers have

1157

00:45:49,350 --> 00:45:53,390

letter-sound proficiency and phonemic

1158

00:45:50,790 --> 00:45:55,980

proficiency and poor readers do not

1159

00:45:53,390 --> 00:45:58,050

students that have letter-sound

1160

00:45:55,980 --> 00:46:00,680

proficiency and phoneme proficiency they

1161

00:45:58,050 --> 00:46:04,910

develop reading skills very easily

1162

00:46:00,680 --> 00:46:04,910

students without those skills struggle

1163

00:46:06,450 --> 00:46:10,150

so what are the critical aspects of

1164

00:46:08,710 --> 00:46:12,630

orthographic mapping and how do you

1165

00:46:10,150 --> 00:46:20,740

think this information might inform your

1166

00:46:12,630 --> 00:46:22,960

instruction in the next session which is

1167

00:46:20,740 --> 00:46:24,369

module 4.5 we're going to look at

1168

00:46:22,960 --> 00:46:28,029

fluency and get a better understanding

1169

00:46:24,369 --> 00:46:30,539

of how we can help children build their

1170

00:46:28,029 --> 00:46:30,539

fluency