

1

00:00:00,000 --> 00:00:03,000

that or

2

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

you

3

00:00:14,000 --> 00:00:16,000

that

4

00:00:22,080 --> 00:00:24,080

Yum

5

00:00:25,080 --> 00:00:28,080

yeah

6

00:00:28,080 --> 00:00:35,080

This guy would be a better way to get through this line.

7

00:00:35,080 --> 00:00:40,640

Look at what we have here.

8

00:00:40,640 --> 00:00:43,080

Zombies in a grocery store?

9

00:00:43,080 --> 00:00:45,380

Lining up in everything.

10

00:00:45,380 --> 00:00:50,380

That gives me an idea.

11

00:00:50,380 --> 00:01:18,460

Okay, Jamie, it's time for a pop quiz.

12

00:01:18,460 --> 00:01:22,940

In all the years we've been making Mythbusters, how many explosions have we caused?

13

00:01:22,940 --> 00:01:25,940

I don't know.

14

00:01:25,940 --> 00:01:27,940

Wow, 900.

15

00:01:27,940 --> 00:01:29,780

Okay, here's another one.

16

00:01:29,780 --> 00:01:35,580

How many cars do you think we've destroyed?

17

00:01:35,580 --> 00:01:36,580

No idea.

18

00:01:36,580 --> 00:01:37,580

Close!

19

00:01:37,580 --> 00:01:38,580

220.

20

00:01:38,580 --> 00:01:41,900

Okay, how many volunteers have we used on Mythbusters?

21

00:01:41,900 --> 00:01:43,060

I know this one.

22

00:01:43,060 --> 00:01:44,060

A lot.

23

00:01:44,060 --> 00:01:45,060

You're darn tootin' it's a lot.

24

00:01:45,060 --> 00:01:49,020

We've used over 3,500 volunteers in the years we've made this show.

25

00:01:49,020 --> 00:01:50,980

We literally couldn't do it without them.

26

00:01:50,980 --> 00:01:55,860

That's why in this final season episode we are paying them homage with two more stories

27

00:01:55,860 --> 00:01:58,060

that require some volunteer help.

28

00:01:58,060 --> 00:01:59,060

Like what?

29

00:01:59,060 --> 00:02:02,260

Well, later we're going to be testing a myth that may prove that we've all been waiting

30

00:02:02,260 --> 00:02:05,420

online at the grocery store wrong.

31

00:02:05,420 --> 00:02:09,820

I felt a little numb on the pride that we just opened our first business and we've

32

00:02:09,820 --> 00:02:11,060

got all these customers.

33

00:02:11,060 --> 00:02:21,060

But first up is a fan favorite that has become a fan favorite to complain about our zombie

34

00:02:21,060 --> 00:02:25,300

episode, specifically Axe vs. Gunn.

35

00:02:25,300 --> 00:02:27,460

I thought we did that in Axe 1.

36

00:02:27,460 --> 00:02:32,140

Well, Axe did win, but fans had to complain about my axe technique.

37

00:02:32,140 --> 00:02:35,140

I think they called it lame.

38

00:02:36,140 --> 00:02:43,380

Yep, in the epic zombie special, Adam's axe killed twice as many zombies as Jamie's

39

00:02:43,380 --> 00:02:47,020

Gunn.

40

00:02:47,020 --> 00:02:51,300

But fans cried foul.

41

00:02:51,300 --> 00:02:57,580

So in this final season, it's now or never for a dawn of the dead do-over.

42

00:02:57,580 --> 00:02:59,140

You remember this axe, don't you?

43

00:02:59,140 --> 00:03:00,700

It's my zombie killing axe.

44

00:03:00,700 --> 00:03:05,460

And while I used it to kill zombies in our zombie episode, fans had problems with the

45

00:03:05,460 --> 00:03:06,780

way I was doing it.

46

00:03:06,780 --> 00:03:10,980

I was touching them and saying they're dead.

47

00:03:10,980 --> 00:03:15,940

Fans pointed out rightly, I might add, that it takes a certain amount of force to embed

48

00:03:15,940 --> 00:03:18,060

an axe in a zombie's head.

49

00:03:18,060 --> 00:03:22,860

And that's something that we're going to try and replicate to make this more realistic.

50

00:03:22,860 --> 00:03:27,900

And to do just that, Adam's starting this volunteer special by breaking the mold.

51

00:03:27,900 --> 00:03:30,140

Oh, check it out!

52

00:03:30,140 --> 00:03:34,580

Dude, are you ready to have your forehead split with an axe?

53

00:03:34,580 --> 00:03:35,980

It's too late.

54

00:03:35,980 --> 00:03:37,900

That's what you were born to do.

55

00:03:37,900 --> 00:03:39,900

Let's go.

56

00:03:39,900 --> 00:03:45,100

Adam's anatomically accurate fake head will help his axe wing be more real.

57

00:03:45,100 --> 00:03:46,100

But how?

58

00:03:46,100 --> 00:03:47,100

This is Jeremy.

59

00:03:47,100 --> 00:03:50,140

He's a friend of mine who has helped me on some projects in the past.

60

00:03:50,140 --> 00:03:53,740

Today he's brought some electronics to help us calibrate our axe hits.

61

00:03:53,740 --> 00:03:54,740

What do we have here, sir?

62

00:03:54,860 --> 00:03:58,140

Well, we have an accelerometer here tied into a microcontroller.

63

00:03:58,140 --> 00:04:02,180

And the accelerometer reads acceleration and deceleration on three axes.

64

00:04:02,180 --> 00:04:07,620

So what I'm hoping to do, if this works, is attach this to the back of our real axe head,

65

00:04:07,620 --> 00:04:11,740

cleave our fake zombie in half, and get a value of how much force that takes.

66

00:04:11,740 --> 00:04:12,740

Yes.

67

00:04:12,740 --> 00:04:13,740

And that's what we'll get with this machine?

68

00:04:13,740 --> 00:04:14,740

Yes, we will.

69

00:04:14,740 --> 00:04:15,740

Awesome.

70

00:04:15,740 --> 00:04:16,740

Let's do it.

71

00:04:16,740 --> 00:04:21,580

With the accelerometer taped into place, it's time to swing for science.

72

00:04:21,580 --> 00:04:23,100

Zombie killing.

73

00:04:23,100 --> 00:04:27,100

This is more gruesome than I thought it would be when we talked about this in the abstract.

74

00:04:31,100 --> 00:04:32,700

That was terrible.

75

00:04:32,700 --> 00:04:34,500

I grazed the side of his skull.

76

00:04:34,500 --> 00:04:37,500

Yep, take one was not a zombie kill.

77

00:04:37,500 --> 00:04:38,500

Look at that.

78

00:04:38,500 --> 00:04:40,620

I peeled off a bit of his flesh.

79

00:04:40,620 --> 00:04:47,500

Take two has accuracy, but lacks the power to penetrate to the brain.

80

00:04:47,500 --> 00:04:48,700

That was not a kill.

81

00:04:48,700 --> 00:04:50,220

You got to hit him harder.

82

00:04:50,340 --> 00:04:51,340

Take three.

83

00:04:51,340 --> 00:04:57,940

Yeah, dead zombies all day long.

84

00:04:57,940 --> 00:05:00,220

Get the kill data Adam needs.

85

00:05:00,220 --> 00:05:03,140

All right, so I successfully killed my zombie head.

86

00:05:03,140 --> 00:05:08,900

And to do so, I swung this axe on a 120 degree arc at 7.8 meters per second.

87

00:05:08,900 --> 00:05:11,980

Now comes the cool part.

88

00:05:11,980 --> 00:05:16,180

We're going to put the same accelerometer onto my original foam axe, along with a special

89

00:05:16,180 --> 00:05:18,020

control unit that Jeremy's been building.

90

00:05:18,020 --> 00:05:19,660

So where do you want that?

91

00:05:19,660 --> 00:05:21,180

Right up here, right up top.

92

00:05:21,180 --> 00:05:26,420

Now when I swing that foam axe through 120 degrees at any speed that is 7.8 meters per

93

00:05:26,420 --> 00:05:31,540

second or higher, then the control unit will let me know I've successfully registered a

94

00:05:31,540 --> 00:05:32,540

kill.

95

00:05:32,540 --> 00:05:33,940

We just made this the coolest toy ever.

96

00:05:33,940 --> 00:05:37,980

But if my swing is not long enough, fast enough or hard enough, it's going to tell me I've

97

00:05:37,980 --> 00:05:39,740

got to swing again.

98

00:05:39,740 --> 00:05:45,020

And to let Adam know his swing success, the unit's been rigged with two sensory systems.

99

00:05:45,020 --> 00:05:47,100

Okay, the machine's ready.

100

00:05:47,100 --> 00:05:48,100

Yeah.

101

00:05:48,100 --> 00:05:49,100

Did you see that?

102

00:05:49,100 --> 00:05:50,100

It says kill?

103

00:05:50,100 --> 00:05:51,100

That's brilliant.

104

00:05:51,100 --> 00:05:52,100

Ooh, that's not enough.

105

00:05:52,100 --> 00:05:53,100

That's not enough.

106

00:05:53,100 --> 00:05:54,100

That's not enough.

107

00:05:54,100 --> 00:05:55,100

That's enough.

108

00:05:55,100 --> 00:06:06,100

Okay, killing zombies, I can tell right now, is going to be tiring.

109

00:06:06,100 --> 00:06:09,460

I'm going to do some push-ups.

110

00:06:09,460 --> 00:06:11,740

Adam's rig is really pretty nifty.

111

00:06:11,740 --> 00:06:15,660

Like last time, it's got a foam head, so it's safe to actually swing near people.

112

00:06:15,660 --> 00:06:17,980

This foam just soaks up the bang.

113

00:06:17,980 --> 00:06:21,900

And now it not only weighs the same as a real axe, but it also takes a realistic amount

114

00:06:21,900 --> 00:06:23,400

of effort to swing.

115

00:06:23,400 --> 00:06:25,660

Oh my God.

116

00:06:25,660 --> 00:06:30,980

So me and my gun may yet come out trumps.

117

00:06:30,980 --> 00:06:38,060

But before the zombie volunteers arrive, the guys must first start their store story.

118

00:06:38,060 --> 00:06:42,940

All right, our next volunteer story is one I have literally always wanted to test, and

119

00:06:42,940 --> 00:06:45,460

it involves waiting online at the grocery store.

120

00:06:45,460 --> 00:06:46,460

What's that?

121

00:06:46,460 --> 00:06:47,460

All right.

122

00:06:47,460 --> 00:06:50,980

So you get your items, and then you're confronted with a whole bunch of checkout lanes, and you

123

00:06:50,980 --> 00:06:56,140

try and assess which one is moving faster so you can get out of that grocery store efficiently.

124

00:06:56,140 --> 00:06:57,140

Yeah.

125

00:06:57,140 --> 00:07:00,980

Well, there's a theory out there that that whole system is totally inefficient, that

126

00:07:00,980 --> 00:07:05,780

the best way to move people through a grocery store is to have one long, snaking line that

127

00:07:05,780 --> 00:07:09,060

when you get to the end of it, you're led to the next available cashier.

128

00:07:09,060 --> 00:07:10,980

And that's supposed to be faster.

129

00:07:10,980 --> 00:07:11,980

It is.

130

00:07:11,980 --> 00:07:13,260

Don't you think we should test that?

131

00:07:13,260 --> 00:07:14,260

Sure.

132

00:07:14,260 --> 00:07:15,260

Why not?

133

00:07:16,020 --> 00:07:22,100

Since the 1960s, the average American has spent 80 hours a year standing in line.

134

00:07:22,100 --> 00:07:25,500

But is it true we've been waiting wrong for so long?

135

00:07:29,500 --> 00:07:35,340

Well, in this final season, it's time to answer this classic conundrum once and for all.

136

00:07:35,340 --> 00:07:37,660

To test this myth, we're going to need a market.

137

00:07:37,660 --> 00:07:40,540

Unfortunately, nobody would let us use theirs.

138

00:07:40,540 --> 00:07:41,540

Not surprising.

139

00:07:41,540 --> 00:07:43,860

I mean, if I had one, I wouldn't let us use it either.

140

00:07:46,260 --> 00:07:51,300

This is why we can't have nice things.

141

00:07:51,300 --> 00:07:53,140

So we're going to make our own.

142

00:07:53,140 --> 00:07:54,140

That's right.

143

00:07:54,140 --> 00:07:57,500

In a few short hours, we are going to use little elbow grease to turn this beautiful empty

144

00:07:57,500 --> 00:08:03,140

room into a running grocery store full of aisles, products, check-out stands, and ultimately

145

00:08:03,140 --> 00:08:04,140

customers.

146

00:08:04,140 --> 00:08:07,420

Welcome to MythBus Store.

147

00:08:07,420 --> 00:08:11,860

With no real stores willing to play ball, I'll do the aisles if you do the registers.

148

00:08:11,860 --> 00:08:12,860

Absolutely.

149

00:08:12,860 --> 00:08:13,860

Here you go.

150

00:08:13,860 --> 00:08:15,620

MythBusters are going to have to build their own.

151

00:08:15,620 --> 00:08:18,580

Oh, it doesn't look like much, but it's going to be awesome.

152

00:08:18,580 --> 00:08:23,140

Adam's starting at the business end by assembling their homemade cash registers.

153

00:08:23,140 --> 00:08:24,780

Next one.

154

00:08:24,780 --> 00:08:26,940

He's fabricating five in total.

155

00:08:26,940 --> 00:08:27,940

Lovely.

156

00:08:27,940 --> 00:08:31,060

And they'll form the key part of their MythBusters mini-mart.

157

00:08:31,060 --> 00:08:33,140

Oh, yeah, cash registers.

158

00:08:33,140 --> 00:08:34,140

It's real.

159

00:08:34,140 --> 00:08:35,140

And that's not all.

160

00:08:35,140 --> 00:08:36,140

The coolest part.

161

00:08:36,140 --> 00:08:42,220

Lit up signs that tell the customers which is the next free aisle.

162

00:08:42,340 --> 00:08:44,340

Meanwhile, Jamie's on the shelf.

163

00:08:44,340 --> 00:08:47,060

This is going to take a while.

164

00:08:47,060 --> 00:08:55,700

With almost 800 feet of shelving for the guys to stack and pack, it's up back-breaking business.

165

00:08:55,700 --> 00:08:58,380

But it does have its advantages.

166

00:08:58,380 --> 00:09:02,780

It might seem tedious to have to build our own store, but it allows us to remove variables

167

00:09:02,780 --> 00:09:06,940

that we might find in a real store that would be beyond our control.

168

00:09:06,940 --> 00:09:07,940

Jamie's right.

169

00:09:08,060 --> 00:09:13,220

A real supermarket will already have a layout locked in and won't want anything to slow

170

00:09:13,220 --> 00:09:15,340

down sales.

171

00:09:15,340 --> 00:09:19,980

So MythBus stores is the way to go.

172

00:09:19,980 --> 00:09:22,100

But a build as big as this...

173

00:09:22,100 --> 00:09:24,180

I have always wanted to do this.

174

00:09:24,180 --> 00:09:29,460

...is something the guys can only pull off because of their experience.

175

00:09:29,460 --> 00:09:30,460

We thought of everything.

176

00:09:30,460 --> 00:09:32,820

We've got baskets too.

177

00:09:32,820 --> 00:09:36,020

This is exactly the kind of episode we never would have attempted in the early days of

178

00:09:36,020 --> 00:09:37,020

MythBusters.

179

00:09:37,020 --> 00:09:41,380

We didn't have the ambition nor the skill to work with large groups of volunteers and

180

00:09:41,380 --> 00:09:44,100

to build our own large-scale experimental spaces.

181

00:09:44,100 --> 00:09:47,100

But we have learned so much over the years.

182

00:09:47,100 --> 00:09:51,300

This is the pinnacle of our ability to work in a budget on a timeline with a whole bunch

183

00:09:51,300 --> 00:09:53,420

of volunteers to test something.

184

00:09:53,420 --> 00:09:56,940

It's certainly ambitious.

185

00:09:56,940 --> 00:09:59,660

And with 5,000 products to place...

186

00:09:59,660 --> 00:10:01,060

Time to start stacking.

187

00:10:01,060 --> 00:10:06,300

It's the perfect go-big or go-home setup for this fanfare well.

188

00:10:06,300 --> 00:10:12,940

What we are 10 hours in and our check-out stands are complete and ready and wired.

189

00:10:12,940 --> 00:10:14,420

Our shelves are up.

190

00:10:14,420 --> 00:10:17,660

But now it's time to stock and there's a lot to stock.

191

00:10:17,660 --> 00:10:19,660

Eat corn!

192

00:10:19,660 --> 00:10:22,500

We are about halfway there with still a fair bit to go.

193

00:10:22,500 --> 00:10:24,580

Alright, ready on aisle 3.

194

00:10:24,580 --> 00:10:29,020

Oh, we don't have any customers yet.

195

00:10:29,020 --> 00:10:35,420

Still to come in this epic volunteer special, it's the dawn of the dead in Acts vs. Gun.

196

00:10:35,420 --> 00:10:41,260

But next, Adam and Jamie shop till they drop.

197

00:10:41,260 --> 00:10:42,260

MythBustor!

198

00:10:42,260 --> 00:10:45,420

Where shopping is fully experimental.

199

00:10:45,420 --> 00:10:55,540

Our other tagline was, we're making this up as we go along.

200

00:10:55,540 --> 00:11:01,180

From testing the laws of attraction to comparing hand hygiene.

201

00:11:01,180 --> 00:11:04,660

Our test subject group seems to have developed its own ritual.

202

00:11:04,660 --> 00:11:10,820

The MythBusters have spent 14 years sourcing volunteers for stories big and small.

203

00:11:10,820 --> 00:11:16,380

She doesn't want to let go.

204

00:11:16,380 --> 00:11:26,180

And in this farewell season, Adam and Jamie have crowdsourced two final crowds.

205

00:11:26,180 --> 00:11:35,980

Starting with the undead.

206

00:11:35,980 --> 00:11:38,860

Here we are back at the scene of our original experiment.

207

00:11:38,860 --> 00:11:41,380

Our zombie battle dome, if you will.

208

00:11:41,380 --> 00:11:45,900

We've got the same exact experimental setup with some new colors and the same weapons.

209

00:11:45,900 --> 00:11:47,860

Jamie gets a gun, I get an axe.

210

00:11:47,860 --> 00:11:49,860

All we need are zombies.

211

00:11:49,860 --> 00:11:54,580

Oh, crap.

212

00:11:54,580 --> 00:12:00,780

With almost 200 volunteer zombies back from the dead, the guys have everything they need

213

00:12:00,780 --> 00:12:06,540

to retest the myth that fans complained about more than any other.

214

00:12:06,540 --> 00:12:10,460

Their biggest complaint was with my axe, specifically my technique.

215

00:12:10,460 --> 00:12:12,820

They said that it was too lightweight.

216

00:12:12,820 --> 00:12:16,580

They suggested, the fans did, that every time I swing the axe it should be with enough

217

00:12:16,580 --> 00:12:21,820

force to actually kill a zombie.

218

00:12:21,820 --> 00:12:27,380

With the axe able to tell if Adam's using enough force to kill, let's go.

219

00:12:27,380 --> 00:12:28,380

Watch the plan.

220

00:12:28,380 --> 00:12:29,580

So how's this going to work?

221

00:12:29,580 --> 00:12:35,700

Well, when I start the timer and I do this, that lets the zombies know that it's time

222

00:12:35,700 --> 00:12:38,100

to get down to business.

223

00:12:38,100 --> 00:12:42,220

And then when I see that the zombies have overtaken Adam, I use this again.

224

00:12:42,220 --> 00:12:43,340

I stop them.

225

00:12:43,340 --> 00:12:47,740

We do a zombie body count and we see how Adam did with his new axe.

226

00:12:47,740 --> 00:12:51,620

It's time for zombies.

227

00:12:51,620 --> 00:12:58,140

In the original episode, Adam dispatched 14 zombies before getting bit.

228

00:12:58,140 --> 00:13:03,100

But how will his new accurate axe work out?

229

00:13:03,100 --> 00:13:07,180

What a fine looking group of ladies and gentlemen we all are.

230

00:13:07,180 --> 00:13:09,180

Are you hungry?

231

00:13:09,180 --> 00:13:12,980

Okay, here we go.

232

00:13:12,980 --> 00:13:18,300

In three, two, one.

233

00:13:18,300 --> 00:13:24,940

This is go time and as soon as the zombies enter the circle, Adam's off and swinging

234

00:13:24,940 --> 00:13:30,740

hard.

235

00:13:30,740 --> 00:13:36,740

But not for long.

236

00:13:36,740 --> 00:13:44,980

With just eight confirmed kills, barely half that of last time, Adam's total has tanked.

237

00:13:44,980 --> 00:13:48,460

This technique seemed to be to run around the perimeter of the circle as fast as he

238

00:13:48,460 --> 00:13:51,700

could to collect as many zombie bodies as he could.

239

00:13:51,700 --> 00:13:57,900

But he's having to put a lot of effort into getting it going and it actually takes a lot

240

00:13:57,900 --> 00:13:58,900

more time.

241

00:13:58,900 --> 00:14:05,300

From above, it looked like an iris that was closing on Adam and when it got small enough,

242

00:14:05,300 --> 00:14:07,300

he was done for.

243

00:14:07,300 --> 00:14:11,180

The new technique has clearly slowed Adam down.

244

00:14:11,180 --> 00:14:16,060

But the key question remains, how does the axe compare to the gun?

245

00:14:16,060 --> 00:14:17,060

It's time.

246

00:14:17,060 --> 00:14:22,380

Okay, zombies, face masks down.

247

00:14:22,380 --> 00:14:27,500

To find out Jamie's armed with a paintball pistol that, at the request of fans, has been

248

00:14:27,500 --> 00:14:30,500

set to semi-automatic.

249

00:14:30,500 --> 00:14:33,860

Alright zombies, are you ready?

250

00:14:33,860 --> 00:14:39,220

Are you ready for some sweet, sweet Heidemann flush brains?

251

00:14:39,220 --> 00:14:40,780

Alright, here we go.

252

00:14:40,780 --> 00:14:52,060

Starting gun test in three, two, one.

253

00:14:52,060 --> 00:14:57,140

From the get go, it's clear that Jamie's semi-auto is fast.

254

00:14:57,140 --> 00:15:07,540

But it's not fast enough to let him shoot his way out of trouble.

255

00:15:07,540 --> 00:15:13,140

In total, Jamie manages only seven kills, one less than Adam.

256

00:15:13,140 --> 00:15:15,780

One of my favorite things about this show, one of the most scientific things that we

257

00:15:15,780 --> 00:15:21,060

do is we take feedback after episodes have aired and we go back and re-retest things.

258

00:15:21,060 --> 00:15:22,380

I love that.

259

00:15:22,380 --> 00:15:27,180

Fans did not like my axe technique, so we rejiggered it, made my axe much more realistic

260

00:15:27,180 --> 00:15:31,380

to swing and as expected, that radically reduced the number of zombies that I could

261

00:15:31,380 --> 00:15:32,380

kill.

262

00:15:33,220 --> 00:15:36,780

But I thought that Jamie was going to mop the floor with me with his use of his new

263

00:15:36,780 --> 00:15:43,580

semi-auto paintball pistol and yet he didn't improve his score at all.

264

00:15:43,580 --> 00:15:51,180

I am totally gobsmacked that it seems right now like axe versus gun, it's axe.

265

00:15:51,180 --> 00:15:55,180

Oh yeah.

266

00:15:56,140 --> 00:16:02,180

Yep, despite the slowdown, the axe is ahead by a head.

267

00:16:02,180 --> 00:16:05,300

But there's way more to come for our armchair army.

268

00:16:05,300 --> 00:16:07,300

I'm ready.

269

00:16:10,620 --> 00:16:13,940

But only after some retail therapy.

270

00:16:13,940 --> 00:16:16,460

And we are pretty much done.

271

00:16:16,460 --> 00:16:20,780

Five checkout stands each with working cash registers and indicator lights.

272

00:16:20,780 --> 00:16:25,980

Five thousand separate food items are rated on over 750 feet of shelving, every single

273

00:16:25,980 --> 00:16:28,140

one with its own label.

274

00:16:28,140 --> 00:16:31,740

\$56,000 in play, myth busters, money.

275

00:16:31,740 --> 00:16:36,380

This is without a doubt the most elaborate experimental setup we have ever implemented,

276

00:16:36,380 --> 00:16:39,740

all to find out which is the more efficient way to wait online.

277

00:16:39,740 --> 00:16:43,140

Now we are pretty much ready to go, we just got to make sure that everything is properly

278

00:16:43,140 --> 00:16:44,140

priced.

279

00:16:44,140 --> 00:16:46,540

This one doesn't have a price, that's a problem.

280

00:16:46,540 --> 00:16:51,300

The guys are testing whether the traditional picolain method is really slower than one

281

00:16:51,300 --> 00:16:57,500

long line, known in the trade as the serpentine.

282

00:16:57,500 --> 00:17:05,740

And with their 5000 products all priced, their elaborate plan is ready to be revealed.

283

00:17:05,740 --> 00:17:07,220

Here's how this experimental setup works.

284

00:17:07,220 --> 00:17:11,340

We've got 120 volunteers and they will enter the store where they'll receive a shopping

285

00:17:11,340 --> 00:17:16,460

list of exactly how many items we want them to buy, then they'll go get a cart.

286

00:17:16,460 --> 00:17:19,660

Once they have their cart they'll enter the store and choose from the vast selection of

287

00:17:19,660 --> 00:17:21,460

myth busters merchandise on display.

288

00:17:21,460 --> 00:17:24,420

Personally, I hope we get cookies.

289

00:17:24,420 --> 00:17:28,780

Once our customer gets in line for the cashier, that's when the data collection actually begins.

290

00:17:28,780 --> 00:17:33,820

They will pull out their timestamp card and enter the precise moment they got in line.

291

00:17:33,820 --> 00:17:36,720

Then they'll proceed right towards the cashier.

292

00:17:36,720 --> 00:17:40,740

Once our customer reaches the cashier, that's when they enter the second data point, the

293

00:17:40,740 --> 00:17:42,980

time they got to the checkout stand.

294

00:17:42,980 --> 00:17:48,580

Thus we will have the precise length of time they spend waiting in line.

295

00:17:48,580 --> 00:17:53,140

Our last stop is here, data collection, where we not only gather our customers' timestamp,

296

00:17:53,140 --> 00:17:55,620

but we're also interested in their experience.

297

00:17:55,620 --> 00:17:59,740

So in the back of each time card they will grade their overall satisfaction with the

298

00:17:59,740 --> 00:18:02,980

line.

299

00:18:02,980 --> 00:18:10,860

With five experienced register operators and a stats table staffed by experts, everything

300

00:18:10,860 --> 00:18:15,860

set to release the volunteers for first a full systems check.

301

00:18:15,860 --> 00:18:25,740

Alright shoppers, starting in three, two, one, go for the run through.

302

00:18:25,740 --> 00:18:30,820

I felt a little moment of pride that we just opened our first business and we've got all

303

00:18:30,820 --> 00:18:34,220

these customers.

304

00:18:34,220 --> 00:18:39,100

The guys are starting with a trial run to make sure their newly built store can cope,

305

00:18:39,100 --> 00:18:45,220

which at first it can.

306

00:18:45,220 --> 00:18:49,900

But ten minutes later, the lines have become unrealistically long.

307

00:18:49,900 --> 00:18:55,140

We're already seeing some problems with our experimental design because our entire customer

308

00:18:55,140 --> 00:19:00,940

base ended up in long lines and that's not realistically like what we would have in a

309

00:19:00,940 --> 00:19:05,420

store so we're going to have to figure out some way of pacing things a little bit to

310

00:19:05,420 --> 00:19:11,300

get lines that are more realistically sized to what you would see in a supermarket.

311

00:19:11,300 --> 00:19:17,140

Yep with just too many shoppers, all at once, their commercial space can't cope.

312

00:19:17,140 --> 00:19:21,060

So the guys kick out their customers and reset.

313

00:19:21,060 --> 00:19:25,700

Alright shoppers, commence entering the store.

314

00:19:25,700 --> 00:19:28,860

This time with 25% fewer people.

315

00:19:28,860 --> 00:19:32,580

There's a special on Jamie Beans on aisle four.

316

00:19:32,580 --> 00:19:36,740

Which soon results in queues that are much more realistic.

317

00:19:36,740 --> 00:19:38,980

Jamie this is working beautifully.

318

00:19:38,980 --> 00:19:41,980

Meaning that the testing can shortly begin.

319

00:19:41,980 --> 00:19:46,500

We have done countless destructive stories over the years, but I also love myths like

320

00:19:46,500 --> 00:19:47,500

this one.

321

00:19:47,500 --> 00:19:50,540

I mean I think when we do something like this we might make the world a slightly better place

322

00:19:50,540 --> 00:19:53,260

by improving people's shopping experience.

323

00:19:53,260 --> 00:19:54,260

That's cool.

324

00:19:54,260 --> 00:19:59,420

That doesn't mean there can't be any destruction like this.

325

00:19:59,420 --> 00:20:09,980

Clean up on aisle five.

326

00:20:09,980 --> 00:20:12,980

The mythbusters have helped drivers save dollars.

327

00:20:12,980 --> 00:20:17,780

The dimpled car, 29.65 miles to the gallon.

328

00:20:17,780 --> 00:20:20,180

And revealed ways to save lives.

329

00:20:20,180 --> 00:20:21,980

It's going down.

330

00:20:21,980 --> 00:20:23,500

Oh boy.

331

00:20:23,500 --> 00:20:27,940

In fact they've always armed viewers with important information.

332

00:20:27,940 --> 00:20:33,580

Did you know what was lurking in your basement?

333

00:20:33,580 --> 00:20:40,500

But at an apocalyptic warehouse let's hope this myth's strange stats aren't ever needed.

334

00:20:40,500 --> 00:20:41,780

So where do we stand?

335

00:20:41,780 --> 00:20:48,020

Well so far it still looks like Axe is edging out gun as a method for dispatching zombies.

336

00:20:48,020 --> 00:20:51,940

However our testing scenario where zombies are coming from all sides.

337

00:20:51,940 --> 00:20:57,380

That is genuinely like the worst possible case scenario under which you could encounter

338

00:20:57,380 --> 00:20:58,380

zombies.

339

00:20:58,380 --> 00:21:02,060

In movies it's much more likely that they're like trying to get in and they get through

340

00:21:02,060 --> 00:21:05,940

something like a breach or a doorway.

341

00:21:05,940 --> 00:21:09,180

So that is the scenario we're going to set up next.

342

00:21:09,180 --> 00:21:14,900

It may sound like an oxymoron but the guys are trying to up the realism of their zombie

343

00:21:14,900 --> 00:21:15,900

methodology.

344

00:21:15,900 --> 00:21:16,900

Nice.

345

00:21:16,900 --> 00:21:22,700

To do that they're ditching the circle surround test and going instead with the classic fence

346

00:21:22,700 --> 00:21:25,180

breach.

347

00:21:25,180 --> 00:21:45,300

The question is will the axe still be the winning weapon?

348

00:21:45,300 --> 00:21:50,500

Like film folklore the undead start by coming through one by one.

349

00:21:50,500 --> 00:21:52,140

This is working great.

350

00:21:52,140 --> 00:21:58,900

But what Adam doesn't know is that Jamie's about to release the zombies en masse.

351

00:21:58,900 --> 00:22:00,900

Reaching the fence.

352

00:22:00,900 --> 00:22:02,900

Oh no.

353

00:22:02,900 --> 00:22:05,900

With walkers now pouring forward.

354

00:22:05,900 --> 00:22:08,740

A living wall.

355

00:22:08,740 --> 00:22:20,100

Adam's swing frequency has to rapidly rise which causes him to get fatigued fast.

356

00:22:20,100 --> 00:22:27,500

So much so that the power of his swing starts to fall below the kill threshold.

357

00:22:27,500 --> 00:22:33,220

Adam is about exhausted and he's slowly losing the battle.

358

00:22:33,220 --> 00:22:37,540

This is exhausting.

359

00:22:37,540 --> 00:22:41,100

I'm dead.

360

00:22:41,100 --> 00:22:45,100

I'm dead.

361

00:22:45,100 --> 00:22:53,020

That was the hardest thing I've done in a long time.

362

00:22:53,020 --> 00:22:55,420

Looks like that was quite the workout.

363

00:22:55,420 --> 00:22:58,940

While Adam recovers I might have pulled a muscle.

364

00:22:58,940 --> 00:23:01,100

Jamie counts up the dead.

365

00:23:01,100 --> 00:23:03,540

21, 22, 23, 24.

366

00:23:03,540 --> 00:23:06,820

To reveal a final tally that's terrifying.

367

00:23:06,820 --> 00:23:08,900

66, 67.

368

00:23:08,900 --> 00:23:13,500

It could be another body or so buried under there but I'll call it 67.

369

00:23:13,500 --> 00:23:20,620

67's on me.

370

00:23:20,620 --> 00:23:29,620

With 67 the benchmark to beat it's time for Jamie to come out all guns blazing.

371

00:23:29,620 --> 00:23:32,140

I'm ready.

372

00:23:32,140 --> 00:23:34,620

Arm to the teeth and then some.

373

00:23:34,620 --> 00:23:36,980

You want a piece of me?

374

00:23:36,980 --> 00:23:41,340

What the carnage commits.

375

00:23:41,340 --> 00:23:46,020

Please remember zombies that Jamie's flesh comes from Indiana which means it's especially

376

00:23:46,020 --> 00:23:47,020

tasty.

377

00:23:47,020 --> 00:23:51,020

All right, here we go.

378

00:23:51,020 --> 00:23:56,220

In three, two, one.

379

00:23:56,220 --> 00:23:58,980

From the get go.

380

00:23:58,980 --> 00:24:00,540

He's not even moving.

381

00:24:00,540 --> 00:24:03,780

Jamie has a clear advantage over Adam.

382

00:24:03,780 --> 00:24:08,580

As he takes down zombies on both sides of the fence.

383

00:24:08,580 --> 00:24:18,340

But when the fence gets breached, Jamie must really start firing on all summoners.

384

00:24:18,340 --> 00:24:21,020

Excellent.

385

00:24:21,020 --> 00:24:24,700

He's doing good.

386

00:24:24,700 --> 00:24:29,620

Come on Jamie, you can do it.

387

00:24:29,620 --> 00:24:33,660

Jamie may not be tiring but the odd gun jam is slowing him down.

388

00:24:33,660 --> 00:24:36,180

He's going to run around the whole other side of me.

389

00:24:36,180 --> 00:24:37,540

This is kind of great.

390

00:24:37,540 --> 00:24:41,380

So much so that his days in the land of the living are numbered.

391

00:24:41,380 --> 00:24:43,380

He might be dead.

392

00:24:43,380 --> 00:24:50,380

Calm down.

393

00:24:50,380 --> 00:24:54,620

Jamie's dead and buried but did he shoot more than 67?

394

00:24:54,620 --> 00:24:55,620

Mr. Heidemann.

395

00:24:55,620 --> 00:24:56,620

Yes.

396

00:24:56,620 --> 00:24:57,620

Stand up.

397

00:24:58,620 --> 00:25:02,380

You took 57 zombies with you.

398

00:25:02,380 --> 00:25:04,980

Well, I guess Axe beats gun, huh?

399

00:25:04,980 --> 00:25:05,980

That is fascinating.

400

00:25:05,980 --> 00:25:06,980

I would not have called that.

401

00:25:06,980 --> 00:25:08,980

All right, let's clean up this mess.

402

00:25:08,980 --> 00:25:12,980

All I got to say, I was surprised.

403

00:25:12,980 --> 00:25:15,700

You would think that this would be like shooting fish in a barrel.

404

00:25:15,700 --> 00:25:19,580

But these guns are more complex than something like an axe.

405

00:25:19,580 --> 00:25:20,900

They have to be reloaded.

406

00:25:20,900 --> 00:25:22,400

They can jam.

407

00:25:22,400 --> 00:25:26,220

And a second or two is enough to make everything go haywire.

408

00:25:26,220 --> 00:25:28,980

So I ended up scoring less than Adam.

409

00:25:28,980 --> 00:25:31,660

But I was expecting exactly the opposite.

410

00:25:31,660 --> 00:25:35,140

Yep, it's a result to confound the critics.

411

00:25:35,140 --> 00:25:40,780

When the apocalypse comes, folks, Axe does beat gun and then some.

412

00:25:40,780 --> 00:25:47,380

After beating Jamie twice, both in the round and in the breach test, I'm like, damn, Axe,

413

00:25:47,380 --> 00:25:49,740

you are the proper tool.

414

00:25:49,740 --> 00:25:56,180

Not only good for a quest through Middle Earth, but also good against zombies.

415

00:25:56,180 --> 00:26:02,900

But before disbanding their undead army, there's one more zombie request to test.

416

00:26:02,900 --> 00:26:07,020

Carove me.

417

00:26:07,020 --> 00:26:12,740

Meanwhile, back at MythBus stores.

418

00:26:12,740 --> 00:26:15,780

Our employee of the month is James Franklin Heinemann.

419

00:26:15,780 --> 00:26:18,580

He hails from Columbus, Indiana.

420

00:26:18,580 --> 00:26:24,260

The lineup trial run has been such a success that the data collection can now begin.

421

00:26:25,020 --> 00:26:26,860

All right, timer ready.

422

00:26:26,860 --> 00:26:27,860

Here we go.

423

00:26:27,860 --> 00:26:30,100

Commence shopping test.

424

00:26:30,100 --> 00:26:35,540

Individual lines in three, two, one, go.

425

00:26:35,540 --> 00:26:41,220

This first test, the standard choose your lane method will last exactly 30 minutes.

426

00:26:41,220 --> 00:26:44,620

It looks pretty much like a busy normal store.

427

00:26:44,620 --> 00:26:49,940

And to make their data as reliable as possible, the MythBusters are cranking the realism up

428

00:26:49,940 --> 00:26:51,780

to the max.

429

00:26:51,780 --> 00:26:54,900

Now some of you who've been watching up to this point might be thinking that we haven't

430

00:26:54,900 --> 00:26:58,820

set a totally real world shopping scenario because we don't have people who slow the

431

00:26:58,820 --> 00:27:01,300

lines down with special requests.

432

00:27:01,300 --> 00:27:03,500

Yee of little faith.

433

00:27:03,500 --> 00:27:06,700

We've actually built two bogies into our testing procedure.

434

00:27:06,700 --> 00:27:07,980

One is a price check.

435

00:27:07,980 --> 00:27:12,220

A certain number of our shoppers will require one and they'll call us on the radio and Jamie

436

00:27:12,220 --> 00:27:15,540

or I will go out and give the actual price.

437

00:27:15,540 --> 00:27:16,540

There you go.

438

00:27:16,540 --> 00:27:17,540

One happened right there.

439

00:27:17,540 --> 00:27:18,540

Oh, OK.

440

00:27:18,540 --> 00:27:19,540

That's \$3.99.

441

00:27:19,660 --> 00:27:22,980

The other one is the most dreaded of shopping scenarios.

442

00:27:22,980 --> 00:27:24,260

Bum, bum, bum.

443

00:27:24,260 --> 00:27:27,780

The person who pays with a bank check.

444

00:27:27,780 --> 00:27:33,460

This combined with the price check ought to make our scenario very, very realistic.

445

00:27:33,460 --> 00:27:38,420

There's no doubt that their super store is super real.

446

00:27:38,420 --> 00:27:42,020

And halfway through, there's already a deluge of data.

447

00:27:42,020 --> 00:27:44,020

OK, check on two.

448

00:27:44,020 --> 00:27:45,020

Roger that.

449

00:27:45,020 --> 00:27:46,660

Mr. Heiden, the price check on two.

450

00:27:46,660 --> 00:27:49,540

Not because Adam's so excited about this store story.

451

00:27:49,540 --> 00:27:51,580

How much is this apple, sir?

452

00:27:51,580 --> 00:27:52,580

\$0.99.

453

00:27:52,580 --> 00:27:53,580

Thank you.

454

00:27:53,580 --> 00:27:58,140

He's volunteering to not just observe but to participate too.

455

00:27:58,140 --> 00:27:59,940

Got my card, got my timestamp.

456

00:27:59,940 --> 00:28:01,740

Now it's time to go shopping.

457

00:28:01,740 --> 00:28:04,380

He's been randomly allocated six items.

458

00:28:04,380 --> 00:28:05,980

Grits, yep.

459

00:28:05,980 --> 00:28:08,660

Which he selects based on taste.

460

00:28:08,660 --> 00:28:10,660

Lab grade gravy.

461

00:28:10,660 --> 00:28:11,660

Delicious.

462

00:28:11,660 --> 00:28:14,220

And packaging.

463

00:28:14,220 --> 00:28:19,660

I only buy these because the label features the handsomeest man I've ever seen.

464

00:28:19,660 --> 00:28:24,220

Then like all the other shoppers, he chooses a queue and notes down the time.

465

00:28:24,220 --> 00:28:25,220

24.36.

466

00:28:25,220 --> 00:28:29,620

24.36.

467

00:28:29,620 --> 00:28:33,820

And that's when the boring part, the waiting, begins.

468

00:28:33,820 --> 00:28:36,220

No magazines to read.

469

00:28:36,220 --> 00:28:38,220

I need to know about what's going on with their Kardashians.

470

00:28:38,220 --> 00:28:42,420

This is the only place in the world I can find that out.

471

00:28:42,420 --> 00:28:47,700

Three minutes, 18 seconds after joining the queue, Adam finally reaches the register.

472

00:28:47,700 --> 00:28:49,180

27.54.

473

00:28:49,180 --> 00:28:50,180

27.54.

474

00:28:50,180 --> 00:28:51,180

Thank you.

475

00:28:51,180 --> 00:28:52,180

All right.

476

00:28:52,180 --> 00:28:54,820

Here, I'm buying that banana peel.

477

00:28:54,820 --> 00:29:00,060

But how will that time compare to his fellow shoppers who continue to collect their data

478

00:29:00,060 --> 00:29:05,300

with destiny until, luckily for them, time's up?

479

00:29:05,300 --> 00:29:10,500

Well after a couple of hiccups, we have completed test number one of our line waiting test.

480

00:29:10,500 --> 00:29:12,340

Thank you very much.

481

00:29:12,340 --> 00:29:14,100

I'm very happy with how it went.

482

00:29:14,100 --> 00:29:18,940

In fact, I even participated as a customer during this one and it felt like a very authentic

483

00:29:18,940 --> 00:29:21,940

shopping experience, which is what we want.

484

00:29:21,940 --> 00:29:24,140

Next up, set up the serpentine.

485

00:29:24,140 --> 00:29:34,220

You want a piece of me?

486

00:29:34,220 --> 00:29:39,540

In the Mythbusters Volunteer Special, the guys have shown that Axe does trump gun.

487

00:29:39,700 --> 00:29:44,540

That was the hardest thing I've done in a long time.

488

00:29:44,540 --> 00:29:50,700

But fans also want to know if its gasoline-powered bigger brother is even better.

489

00:29:50,700 --> 00:29:55,260

And for that, Adam's taking up pit stop at the shop.

490

00:29:55,260 --> 00:29:59,220

While we've been playing around with guns and axes, I have to say I feel we have neglected

491

00:29:59,220 --> 00:30:04,100

perhaps the most spectacular of zombie killing tools and no zombie apocalypse would be complete

492

00:30:04,100 --> 00:30:09,340

without it, the humble chainsaw.

493

00:30:09,340 --> 00:30:16,260

Although the Axe was awesome, viewers want to know if the iconic chainsaw is really a

494

00:30:16,260 --> 00:30:21,740

zombie's ultimate enemy.

495

00:30:21,740 --> 00:30:26,780

To find out, first Adam must calibrate his weapon so that it can reliably register a

496

00:30:26,780 --> 00:30:29,280

kill.

497

00:30:29,280 --> 00:30:32,180

And for that, he's switching things up.

498

00:30:32,180 --> 00:30:39,300

When I take a chainsaw and I touch a zombie, there's a certain length of time I touch him

499

00:30:39,300 --> 00:30:42,060

for before I've cut through his skull and his cranium.

500

00:30:42,060 --> 00:30:44,820

I'm guessing three quarters of a second.

501

00:30:44,820 --> 00:30:49,340

So what I've done is I've set a switch into this chainsaw that will start a timer going

502

00:30:49,340 --> 00:30:52,460

that will go BING every time I've killed a zombie.

503

00:30:52,460 --> 00:30:53,460

And this is the switch.

504

00:30:53,460 --> 00:30:58,660

It's a little bit of a UHMW guide, a micro switch, and when I touch a zombie, it clicks

505

00:30:58,660 --> 00:31:00,860

the switch.

506

00:31:00,860 --> 00:31:02,360

Hear that?

507

00:31:02,360 --> 00:31:07,700

Adam's timer switch will ensure that he can kill zombies unrealistically fast.

508

00:31:07,820 --> 00:31:09,020

Dead zombie.

509

00:31:09,020 --> 00:31:10,020

Dead zombie.

510

00:31:10,020 --> 00:31:11,940

That's how this is going to work.

511

00:31:11,940 --> 00:31:17,180

But so as to not really harm our volunteers, he's also swapping out the blade for something

512

00:31:17,180 --> 00:31:19,460

significantly less sharp.

513

00:31:19,460 --> 00:31:21,820

I've got to kill zombies without hurting them.

514

00:31:21,820 --> 00:31:25,420

Next comes the predictable paint job.

515

00:31:25,420 --> 00:31:32,220

Before one last addition, a blood spatter system to crank the realism to the max.

516

00:31:32,220 --> 00:31:33,500

Everyone knows zombie blood isn't red.

517

00:31:33,500 --> 00:31:35,100

It's a family show.

518

00:31:35,100 --> 00:31:39,660

And with that, it's finally ready for a full systems check.

519

00:31:39,660 --> 00:31:41,980

This is test number one.

520

00:31:41,980 --> 00:31:42,980

Zombie killing chainsaw.

521

00:31:42,980 --> 00:31:55,860

Let's go kill some zombies.

522

00:31:55,860 --> 00:32:01,300

But before we start that mayhem, it's back to the MythBest store shopping spectacular,

523

00:32:01,420 --> 00:32:06,020

Adam and Jamie are tackling a classic queuing conundrum.

524

00:32:06,020 --> 00:32:10,940

Just remember shoppers, there's also a special on Jamie beans in aisle four.

525

00:32:10,940 --> 00:32:17,020

They're trying to find out whether it's quicker to wait in individual lanes or one giant line.

526

00:32:17,020 --> 00:32:19,980

Here's a little something for your trouble.

527

00:32:19,980 --> 00:32:27,020

And with the 30 minute choose your lane test ticked off, the store manager has the stats.

528

00:32:27,020 --> 00:32:30,700

Well test one is done, the results are in, and I have this handy palm full of figures.

529

00:32:31,100 --> 00:32:33,140

The process 138 shoppers.

530

00:32:33,140 --> 00:32:36,620

They averaged a wait time of five minutes and 39 seconds.

531

00:32:36,620 --> 00:32:38,820

The fastest was two minutes 16 seconds.

532

00:32:38,820 --> 00:32:41,300

The slowest nine minutes and 21 seconds.

533

00:32:41,300 --> 00:32:43,140

That was an unhappy shopper.

534

00:32:43,140 --> 00:32:47,380

And they had an average satisfaction level of 3.48 out of five.

535

00:32:47,380 --> 00:32:49,220

I think that's a little bit above average.

536

00:32:49,220 --> 00:32:52,500

Now what does this mean when the serpentine line happens?

537

00:32:52,500 --> 00:32:55,260

I can't see it changing it that much.

538

00:32:55,260 --> 00:32:56,460

I could be wrong.

539

00:32:56,460 --> 00:33:01,500

To find out, the guys set up their serpentine, which is pretty simple.

540

00:33:01,500 --> 00:33:05,540

Basically the serpentine line is just a single line.

541

00:33:05,540 --> 00:33:10,380

It may snake around like a serpent, but that's just to fit in the store more conveniently.

542

00:33:10,380 --> 00:33:12,460

Darn right it's a long line.

543

00:33:12,460 --> 00:33:18,020

The customer at the head of the line simply waits for the next available cashier and he

544

00:33:18,020 --> 00:33:19,740

goes there.

545

00:33:19,740 --> 00:33:23,020

That's the concept, but to see if it's faster.

546

00:33:23,020 --> 00:33:24,020

Cashiers are you ready?

547

00:33:24,020 --> 00:33:25,020

Yeah.

548

00:33:25,020 --> 00:33:30,500

The guys open for business for their 90 volunteers.

549

00:33:30,500 --> 00:33:31,500

Go.

550

00:33:31,500 --> 00:33:34,300

But the test won't start straight away.

551

00:33:34,300 --> 00:33:39,180

You might be wondering at this point why we're letting our store run before starting to gather

552

00:33:39,180 --> 00:33:40,180

any data.

553

00:33:40,180 --> 00:33:43,540

And the reason is, well it's best to think of our store like a marble run.

554

00:33:43,540 --> 00:33:46,020

It looks like I'll choose the other player here.

555

00:33:46,020 --> 00:33:50,420

So if you have a marble run with tracks and wheels and you dump 50 marbles in all at once,

556

00:33:50,420 --> 00:33:54,820

you're going to start in a clump and then slowly disperse throughout the machine as it

557

00:33:54,820 --> 00:33:55,820

goes.

558

00:33:55,820 --> 00:33:57,140

That's exactly what we're doing here.

559

00:33:57,140 --> 00:33:59,780

We're bringing in our people and then letting them disperse.

560

00:33:59,780 --> 00:34:04,260

And once they're dispersed, that's when our data is going to be more accurate because

561

00:34:04,260 --> 00:34:06,540

it's more averaged across the system.

562

00:34:06,540 --> 00:34:12,100

It takes five minutes to achieve an optimum dispersal and then it's all systems go.

563

00:34:12,100 --> 00:34:18,700

All right let's start the clock in three, two, one, commence continuing shopping.

564

00:34:18,700 --> 00:34:22,980

To ensure a valid comparison, they're using the same number of volunteers.

565

00:34:22,980 --> 00:34:25,300

Looks like number two is up for you, man.

566

00:34:25,300 --> 00:34:28,220

With the same number of wildcards.

567

00:34:28,220 --> 00:34:33,660

But by studying the dynamics of the queue, Jamie's already spotted something serious.

568

00:34:33,660 --> 00:34:39,100

So the amount of time that it took that customer to get from the middle of the line to the

569

00:34:39,100 --> 00:34:44,620

cashier is time that didn't exist if that person was standing in line the conventional

570

00:34:44,620 --> 00:34:45,620

way.

571

00:34:45,620 --> 00:34:50,500

That travel distance that I think has to be making this whole thing take more time.

572

00:34:50,500 --> 00:34:55,660

According to the Heinemann, this extra travel to the till will slow the system.

573

00:34:55,660 --> 00:34:57,520

But Adam's not so sure.

574

00:34:57,520 --> 00:35:01,060

When we first started writing out the methodology for this test, I have to tell you I had some

575

00:35:01,060 --> 00:35:04,060

bias and I thought serpentine was totally going to win.

576

00:35:04,060 --> 00:35:08,820

But now after watching this in action, I'm not so sure that I'm right about that because

577

00:35:08,820 --> 00:35:14,700

it may be that this just makes it fairer for everybody but not necessarily faster for

578

00:35:14,780 --> 00:35:15,780

everybody.

579

00:35:15,780 --> 00:35:16,780

Price check on two.

580

00:35:16,780 --> 00:35:18,780

Oh, price check on two.

581

00:35:18,780 --> 00:35:19,780

Excuse me.

582

00:35:19,780 --> 00:35:20,780

Still to come.

583

00:35:20,780 --> 00:35:22,300

Jamie shops for signs.

584

00:35:22,300 --> 00:35:27,700

It's a good known fact that Heinemann can live for months on nothing but eggs and beer.

585

00:35:27,700 --> 00:35:30,700

And Adam goes in for the kill.

586

00:35:30,700 --> 00:35:32,700

Prove me.

587

00:35:32,700 --> 00:35:36,700

Here, yes, yes, ah!

588

00:35:36,700 --> 00:35:42,700

To celebrate this farewell season, this is Mythbusters by the Numbers.

589

00:35:43,700 --> 00:35:56,700

From viewers with terrific talents to hordes of human guinea pigs, the Mythbusters have

590

00:35:56,700 --> 00:36:05,700

relied on audience participation for 14 years in change.

591

00:36:05,700 --> 00:36:11,700

So to all our 3,500 intrepid volunteers, we literally

592

00:36:12,700 --> 00:36:14,700

couldn't have done it without you.

593

00:36:14,700 --> 00:36:18,700

Yo, I'm Jesse Pikman and it's time to science this Bia chop.

594

00:36:27,700 --> 00:36:32,700

Adam and Jamie are testing a super story about the Superstore.

595

00:36:32,700 --> 00:36:38,700

Is it better to line up in individual lanes or in one long line?

596

00:36:38,700 --> 00:36:45,700

Halfway through the long line test and their Mythbust store data is coming in in droves,

597

00:36:45,700 --> 00:36:48,700

which is Jamie's cue to join in.

598

00:36:48,700 --> 00:36:50,700

It's time for you to be a customer.

599

00:36:50,700 --> 00:36:51,700

Okay.

600

00:36:51,700 --> 00:36:53,700

Like Adam before him, 10 items.

601

00:36:53,700 --> 00:36:56,700

Jamie's volunteered to collect data.

602

00:36:56,700 --> 00:36:58,700

Fresh produce is good for you.

603

00:36:58,700 --> 00:37:01,700

As he sources a randomly allocated 10 items.

604

00:37:01,700 --> 00:37:04,700

And some peanut butter.

605

00:37:04,700 --> 00:37:09,700

Before standing in line, which is too hard for Adam to resist.

606

00:37:09,700 --> 00:37:11,700

Yes, yes, yes, yes.

607

00:37:11,700 --> 00:37:17,700

You can see him that he's blending in with the average populace, not even a little bit.

608

00:37:17,700 --> 00:37:23,700

You can spot him by his absurd mustache and self-referential hat.

609

00:37:23,700 --> 00:37:31,700

Whereas Adam Attenborough Savage cued for 3 minutes 18, Jamie's wait is way longer,

610

00:37:31,700 --> 00:37:33,700

a whopping 5 minutes 29.

611

00:37:33,700 --> 00:37:34,700

There you go.

612

00:37:34,700 --> 00:37:36,700

Keep the change.

613

00:37:36,700 --> 00:37:39,700

But that's still less than the Piccolane average.

614

00:37:39,700 --> 00:37:41,700

So what will the rest of the data say?

615

00:37:41,700 --> 00:37:49,700

Well, 6 minutes and 32 transactions later, the guys have all the numbers they need.

616

00:37:49,700 --> 00:37:51,700

All right, everybody, freeze where you are.

617

00:37:51,700 --> 00:37:52,700

Freeze where you are.

618

00:37:52,700 --> 00:37:54,700

That will conclude test number two.

619

00:37:54,700 --> 00:37:55,700

You guys are awesome.

620

00:37:55,700 --> 00:37:56,700

Thank you.

621

00:37:56,700 --> 00:37:59,700

Give it a great jump.

622

00:38:00,700 --> 00:38:03,700

All right, the results of our serpentine tests are in.

623

00:38:03,700 --> 00:38:10,700

And if you remember, the average wait time for our five individual lane shoppers was 5 minutes and 39 seconds.

624

00:38:10,700 --> 00:38:16,700

The average wait time for the serpentine shoppers was 6 minutes and 56 seconds.

625

00:38:16,700 --> 00:38:22,700

Yes, 77 seconds on average per shopper slower.

626

00:38:22,700 --> 00:38:23,700

What the hey?

627

00:38:23,700 --> 00:38:25,700

That's absolutely kind of mind-blowing to me.

628

00:38:25,700 --> 00:38:26,700

That's right.

629

00:38:26,700 --> 00:38:28,700

But here's where it gets interesting.

630

00:38:28,700 --> 00:38:33,700

Even though the serpentine moved slower, the customers actually liked it better.

631

00:38:33,700 --> 00:38:37,700

In fact, twice as many gave it a five the top rating.

632

00:38:37,700 --> 00:38:39,700

Go figure.

633

00:38:39,700 --> 00:38:43,700

It's a result that's the complete opposite of the myth.

634

00:38:43,700 --> 00:38:47,700

The serpentine was slower, yet also more popular.

635

00:38:47,700 --> 00:38:49,700

And Adam thinks he knows why.

636

00:38:49,700 --> 00:38:52,700

So why is serpentine slower?

637

00:38:52,700 --> 00:38:54,700

Well, let's look at the individual lines first.

638

00:38:54,700 --> 00:38:58,700

The fastest time through those lines was 2 minutes and 16 seconds.

639

00:38:58,700 --> 00:38:59,700

That is blazing fast.

640

00:38:59,700 --> 00:39:01,700

No bogies, quick cashier.

641

00:39:01,700 --> 00:39:02,700

Everyone's happy.

642

00:39:02,700 --> 00:39:07,700

But our fastest time in the serpentine was almost twice as slow, 4 minutes and 33 seconds.

643

00:39:07,700 --> 00:39:12,700

That's because the speed of the lines is averaged out across the entire group.

644

00:39:12,700 --> 00:39:13,700

And it brings it down.

645

00:39:13,700 --> 00:39:18,700

And when you add in the length of time it takes to get from the end of the line over to the next available cashier,

646

00:39:18,700 --> 00:39:22,700

well, it turns out you've added almost a minute to everyone's time.

647

00:39:22,700 --> 00:39:23,700

That's pretty amazing.

648

00:39:23,700 --> 00:39:25,700

Yep, it's slower for sure.

649

00:39:25,700 --> 00:39:29,700

But because it's also fairer, it's got the volunteer thumbs up.

650

00:39:34,700 --> 00:39:37,700

So how to call this myth is actually kind of interesting.

651

00:39:37,700 --> 00:39:38,700

How so?

652

00:39:38,700 --> 00:39:43,700

Well, the myth as stated is that the serpentine method, the single long line is faster.

653

00:39:43,700 --> 00:39:46,700

And the implication is that it's therefore better.

654

00:39:46,700 --> 00:39:47,700

Right.

655

00:39:47,700 --> 00:39:50,700

But even though we found it was 23% slower.

656

00:39:50,700 --> 00:39:51,700

The customers liked it better.

657

00:39:51,700 --> 00:39:55,700

Yeah, so we're in this weird position of saying serpentine method is busted.

658

00:39:55,700 --> 00:39:56,700

But it's also better.

659

00:39:56,700 --> 00:39:57,700

Yeah, busted but better.

660

00:39:57,700 --> 00:39:58,700

That's cool.

661

00:39:58,700 --> 00:39:59,700

Let's get out of here.

662

00:39:59,700 --> 00:40:00,700

Okay.

663

00:40:09,700 --> 00:40:11,700

Back at their apocalyptic location.

664

00:40:12,700 --> 00:40:15,700

It's time for this last season's last stand.

665

00:40:16,700 --> 00:40:19,700

Against the zombies ultimate nemesis.

666

00:40:23,700 --> 00:40:31,700

But will the legendary chainsaw beat the course record of 67 kills?

667

00:40:31,700 --> 00:40:32,700

Okay, Adam.

668

00:40:32,700 --> 00:40:35,700

Three, two, one, go.

669

00:40:35,700 --> 00:40:38,700

Remember, Adam's rigged his replica.

670

00:40:38,700 --> 00:40:40,700

Zombie blood all over me.

671

00:40:40,700 --> 00:40:44,700

With a switch that lets him kill a zombie in three quarters of a second.

672

00:40:44,700 --> 00:40:46,700

Come on, come on, zombies, yes.

673

00:40:46,700 --> 00:40:52,700

Which means he's able to rack up his score faster than a death metal montage.

674

00:40:52,700 --> 00:40:53,700

Oh, yes.

675

00:40:53,700 --> 00:40:56,700

Oh, this is awesome.

676

00:40:56,700 --> 00:40:59,700

Ah, ah, ah.

677

00:40:59,700 --> 00:41:00,700

Yes.

678

00:41:00,700 --> 00:41:02,700

Oh, this is awesome.

679

00:41:02,700 --> 00:41:06,700

Ah, ah, ah, yes.

680

00:41:06,700 --> 00:41:09,700

Ah, ah, ah.

681

00:41:09,700 --> 00:41:12,700

With minimal reset time and little fatigue.

682

00:41:12,700 --> 00:41:15,700

Ah, oh, I'm falling into zombies.

683

00:41:15,700 --> 00:41:21,700

It's only four manic minutes until Adam is the last man standing.

684

00:41:21,700 --> 00:41:26,700

Ah, ah, ah, yes.

685

00:41:26,700 --> 00:41:28,700

Woo.

686

00:41:28,700 --> 00:41:32,700

I killed all the zombies.

687

00:41:32,700 --> 00:41:36,700

It's a final season scene of utter devastation.

688

00:41:36,700 --> 00:41:42,700

All 190 zombie volunteers are dead and buried.

689

00:41:42,700 --> 00:41:45,700

It's been a few decades since I was a mediocre student,

690

00:41:45,700 --> 00:41:50,700

but I remember enough to remember that a really good score is 100%.

691

00:41:50,700 --> 00:41:54,700

That's how many zombies I killed, and it feels good.

692

00:41:55,700 --> 00:41:58,700

With a success rate that's second to none,

693

00:41:58,700 --> 00:42:04,700

the chainsaw status as the ultimate end of the world weapon is well and truly confirmed.

694

00:42:04,700 --> 00:42:09,700

But that's not the only top tip from the misbusters.

695

00:42:09,700 --> 00:42:12,700

So after all that we've learned with dealing with zombies,

696

00:42:12,700 --> 00:42:14,700

what's your plan in the zombie apocalypse?

697

00:42:14,700 --> 00:42:16,700

Run.