

Treasure Island Pedagogies: Episode 3

Podcast Transcript

Tunde Varga-Atkins: Hello everybody, this is the Centre for Innovation in Education. Liverpool University, our Treasure Island Pedagogies podcast, and I've got three guests here and by coincidence or slight manufacturing - we have got a lot of "M's".

We would like you to give a lightbulb moment when you felt your students were getting it and what made that happen. And you can also talk about your teaching prop and your pedagogy and a luxury item as well that you would take to your treasure islands.

Katherine Whitehurst: So I'm Katherine Whitehurst and I'm from the Communications and Media Department and my lightbulb moment actually comes from students not getting it.

So I have been teaching for a number of years in Canada and Scotland before coming to England, and, I'd always done a kind of a pretty basic seminar where you assign a reading and then you as a group, answer questions together. And when I got to England, I realised that people are very reserved in a way that North Americans and a lot of Scottish people aren't. They may be a bit more forthcoming in their opinions, and my students weren't really keen on this set of exchanges. And I also found that you always had a couple of groups that were really strong, but then you had one seminar group where the kids maybe didn't engage as much and there was suddenly a disconnect because it was like this sense that, well, nobody else in the class is doing the work, so I'm not going to do the work

and they didn't realise that all this other work was happening in these other seminars that they were missing out on.

So with these two problems and I wasn't quite sure how to fix them, so I started paying attention to how my students interact while they're waiting for my lecture to start, and what I realised is that they all sit around their devices and they're on their devices and they're chatting to each other through their devices. But then they're also chatting to each other in person, and I thought this is what this my students need - a mediator.

So I decided to scrap my seminars and do a giant workshop where I had the whole lecture group together. So we're talking about probably anywhere between 70 - 90 students and myself and a colleague. And what we would do is we put them into different groups and we'd have them sign on to Teams and we have a task for them, so they might have to complete a storyboard or they might have to create a video or different type of tasks that they had to work on as a group.

And we had the template of what they needed to do already uploaded onto Teams within these kind of groups and each week they would work with different people so it was never the same people, they got circulated, and then what we did is we project the Teams on to the front of the classroom, and as we were walking around and talking to them, about what they were doing, we'd go up to the front of the room and say guys, let's all click into Group 11 because they've done this really amazing thing and we show them what they had.

What that did is it made them competitive. When they realise that some of their classmates were doing amazing work, and that if they wanted to keep up that they needed to do this work too. So our engagement went up. But it also meant the kids in class that were really introverted in

talking, what we found, what they were doing was instead of talking in their group, they were just typing stuff in and so suddenly we were getting participation from kids that were really quiet. And sometimes you wouldn't even realise that they were engaging. They just were really shy and then that was really great for the students who were super extroverts because they suddenly realise that these kids hadn't just come unprepared, they were prepared, they were just quiet and so then you could see students taking some other students under their wing and whatnot. So this worked out really well when Covid hit because our students were already working online, so we just moved it. So now we have the Zoom, where we put them into breakout groups and then sometimes we bring them all together and like talk as a group about what's going on. But that was kind of my ah ha moment.

Brilliant, that's fantastic. So many layers of engagements. And yes, that's lovely. Matt. Do you want to share your lightbulb moments at this point?

Matt Murphy: Something struck me when Katherine was talking, how easily she used the phrase, "So we clicked through to their group." Like that's a new thing for all of us. Clicking through to see groupwork is something we weren't doing a year ago, but it's a really nice example I think of how the new world is actually enabled us to do different things that are actually can be much more better than they were in the old world.

Yes, my name is Matt Murphy and I'm from the Department of Mechanical Materials and Aerospace Engineering. I teach engineering design.

Okay, so I was walking around all of last week really. I mean not thinking too hard but then but thinking a little about this question and I couldn't land on the right lightbulb moment and then on Wednesday last week

believe it or not, I had my lightbulb moment but actually it's one that I have every year and it always happens in about Week Seven or about Week Eight. So about this time of year.

By way of background, our MEng programs - our integrated Masters programs are built around really what we call a capstone project. Four semester projects in Year Three and Four worth 45 credits altogether. And they're all group design. So students work with each other to design, build, manufacture and put to use a real engineering product. So you've probably seen the most photogenic ones of those which are the Formula Student car, the single seat race car that our students compete in the University Grand Prix at Silverstone in.

Yes, it's been on the BBC as well. Wasn't there on Channel 4 News this year last year?

MM: Yes, engineers are always on telly, we give good press. But then also in the same in the same category as I guess is our velocipede that has broken records in the Nevada desert. Human powered land speed records.

So they are the most photogenic of these projects where groups of students design and build something real. But in the same module I guess there are other projects that are industry-led, so students choose from a portfolio of about eight, so they might choose those sporting ones or industry ones as an example, we've just started a really exciting new one with Siemens Gamesa who are the Spanish renewable energies part of Siemens, so wind turbines. Basically. We're working with their office in Denmark to design, build and install a land turbine to bring reliable refrigeration to some tomato farmers on Zanzibar.

Well, a fantastic international project, isn't it?

MM: Yes, students get to go to Zanzibar and I don't know if you've seen Zanzibar, but it was an easy sell this one. There are a dozen students on that project, but again so, they're doing something not really to participate in a sporting event, but something that's actually hopefully going to change lives of a group of people in the developing world.

So these are real projects and they become central to the students' lives, not just their education actually but they also represent, I think, a really important transition. They go from participating in constructed exercises or constructed activities for academic purposes. So everything they've done in the first two years has been constructed to teach them something. It hasn't been real and open-ended and this transition, I think is the hardest point in our in our education immediately.

Why is that?

MM: Why? All their education up until that point has been about as I said, completing problems or solving problems that have been constructed for them to teach them. You know, Weeks 4 - 6 of the syllabus, or to assess particular learning outcomes, but now these are real problems. They're out in the world doing real engineering, and it's a mental shift, and for the first six weeks of Semester One these new third years, they're actually like rabbits in headlights. A bit stunned, I mean overwhelmed by the complexity of the project. And adapting to a completely new way of working and a new relationship with us. We're no longer people telling them stuff, we're people doing things with them, so that's a big change.

I think the most overwhelming is that they're responsible for something real at the end of it, you know if they were a Formula Student. They know that in two years they have to have something that they've got that's come out of their brains into existence to drive around Silverstone and compete

against other universities. It's a whole lot of pressure and responsibility they've not had before.

So I think in week seven or eight, they really realise where they are. They could come up for air and look around and say, actually, it sinks in that no one's done this before. It's not a constructive exercise, you're doing it for the first time. You're leading it. You're responsible for it, but the key thing is we have faith in their ability to do it. And sometimes I think that's the first time they've actually felt that we've got faith in their ability to do something important. In the past, we have to have faith that they're going to pass the CA or they're going to have faith that they're going to pass an exam, but not that they're going to go and break a world record in the desert in a machine they've designed and built themselves. It's a whole shift.

So I think the lightbulb moment for students is this is the first time that they realise they're entering a profession. The first time they're doing it, undertaking a real challenge. And I think for many of them, it's the first time they're confident they can achieve something. And the first time they've had a little glimpse of the future - two years' time when they graduate, the kind of work they will be doing. So for that reason, I think halfway through this first semester is a lightbulb for our third years in many ways.

So it's obviously a process that's, again fascinating with such a complexity as well. Lovely too similar, to Katherine's example that you know there, so you set them up. You said lots of things around instead of teaching to them, you know you're working with them or alongside them, and that faith is very interesting as well, because you are from a

discipline that's very science and rational-oriented, and you know that's so interesting what you say about faith.

So what is it that you think happens by week seven, which is just gone past week, that can contribute to this gradual process? But at the same time, is it just that it converges, you think, by then?

MM: I think it's by that time they've been able to understand the problem they've been set - design and build a low-cost wind turbine to bring energy to these tomato farmers. And as they start to do their background research in the first couple of weeks, standard Year Three activity. They're used to that right, go and do some internet work, some library work actually fully define this problem. They start to realise how broad and complex it is and be overwhelmed by it. And then they get as I said, they have the problem working with Siemens now that they're worried about these professionals meeting them every week and how they're looking in the eyes of professionals.

And they keep this building up, but obviously living in the problem for a while, you gradually become to get used to it, and the more research you do, you gradually be able to break it down into manageable chunk. Work packages, then tasks.

And the other thing they have to-, the main mental shift though is they ask us a question, what do you want us to do this week? And the answer they always get which annoys them incredibly, is "what do you want to do this week?" or "do you think I should go and review or research this?" "Well, do you think you should go and research that?" Which must be irritating to them, but they gradually the penny drops and that's the lightbulb going on is for them to decide what is it. It's up to me to organise that and it's up to me to ask for support from the academic supervisor or industrial

supervisor or technicians or other academics that have expertise in the field, to go and find that when I need it.

No one is going to me, say, to them. It's week four. So now you'll find a folder on Blackboard which has got everything you need. What they say is "it's week six. You're quarter away to the finish line." Sorry an eighth of the way to finish line. Where are you up to? What are you doing? How, show, prove to me that you're moving towards that line.

So that's lovely. It's like you, it's you. You giving them permission to really think for themselves and act as professionals. That's a lovely insight. Shall we hear from other matt as well? From your lightbulb moments.

Matthew Flynn: I'm Matthew Flynn. I'm a lecturer in Music Industries in the Music Department, and in some ways my lightbulb moment is a different approach to a lot of the issues that Matt just outlined.

Most of my teaching career has been spent helping aspiring young musicians and music practitioners develop their careers, which is in a very complex and very uncertain environment. And in some ways, the major difference is there is no endpoint. They're constantly in projects within projects that they do, but in terms of career development, there's no endpoint.

My own journey into teaching was unusual, I came in from industry with no sort of student experience of my own initially to compare it to and, then I taught for a good couple of years before I even went and did a Masters myself. So sort of learning as I went and yes, making it up as I went along a bit, which is a bit like career development in the music industry to be honest.

Good analogy!

MF: And then you've got this and so then you have a real responsibility because there's people's livelihoods and careers that you're talking about.

There's also the, you know, the general statistical overarching notion that not everyone is going to be successful. In fact, the vast majority of people aren't going to be successful and have the careers that they want, and so there's that fine balance of facilitating ambition and managing expectation and trying to get that right.

And so for me, mine is more of a-, yes it was a lightbulb moment, but it took me a few years teaching to realise it. But it's still something I have to come back to all the times, more of a guiding principle and because of the amount of different facets of been a music professional in terms of creativity, the need to collaborate and to form projects. And then each of those projects, having, whether you're aware of them or not at the time, sort of commercial, contractual and copyright consequences in terms of how you define those projects and choose those things.

The pace at which you bring people's awareness of that forward, I suppose, was the thing that really I had to start to get right. Because coming in as a practitioner, you know an awful lot of stuff. And initially, I felt like I needed to communicate all this to my students so they understood what I understood as quickly as possible. I found that that was what my job was to do.

It took me a few years to realise actually that's not what my job is. My job is to teach them what they need know at the point that they need to know it and build from a very sort of root-base, a set of building blocks and build, you know on concepts. And that sounds quite obvious, now that I say it,

but it's something I have to remind myself of all the time because again, my sort of, you know, when you start talking about contracts and copyright and the complexities of those particular things and how that relates to each individual's career path.

And it can be different for you. I can have a seminar of five or six students. And each of them, or a project where you've got a couple of songwriters, a producer, a couple of session musicians, each one of them in the project, even though they're all engaged in the same project, will be in a different copyright, contractual, commercial situation. So trying to get a consensus around these are the fundamental principles. But there's how they deal with each. You need to understand how they affect you differently, it is quite a balance to strike.

And so I constantly have to remind myself to not get too far ahead because I can, you know. Obviously, I've got an enthusiasm for the subject so I can just run off if I'm allowed to. And so in designing from a lecture point but particularly seminars, that's the chance ready where you do get to inspire people I think so really, like, light a fire under them in terms of-, but also you've got to make sure that you don't overwhelm them.

And so it's just for me. There's always that okay, what is needed in the moment. Now in terms of delivery, what do these students need to understand now, for them? Not what I think they need to know. And just constantly reminding myself of that is that is the is the lightbulb moments that I keep coming back to always.

So you keep checking the lightbulb as well, which is how hot is it?

MF: Yes!

That's lovely.

MM: When Matt said something about having so much knowledge and enthusiasm himself but not trying to get it all out at once and overwhelming them, but realising you have to stage it and deliver it as needed was something that chimed exactly with my teaching as well. I mean I couldn't support that more strongly. I think that's exactly right. It's always difficult to gauge how much to deliver and when.

So that I think it's enough to keep that fire. You've lit a fire under them in your seminar work. Enough to keep that fire going, but without making it too overwhelming.

MF: Yes and also pacing it because you have a range of students with different abilities and different levels of enthusiasm and they're learning at different paces and so trying to you know strike that mid balance between those that are quite active industry wise and quite engaged, and again, it's one of those industries that you learn by doing predominantly and making some mistakes and reflecting on them and learning by them and not dissimilar to that. You know in terms of what you're trying to encourage, your third-year students to do maths in terms of that project developments. It's the same, it's just in lots of ways. It's just more longitudinal.

And so trying to give them those skills of reflection and encouraging them to go out. And it's okay to make mistakes and trying to get them to be bold enough and brave enough without overwhelming them with the with the quite demoralising statistics, particularly this year of what's going on and trying to encourage them and keep them focused on this won't be forever. There will be opportunities and opportunities will come about. There's still opportunities now. Yes, it's getting that balance right is always the thing I'm most mindful of.

Great, OK, so that's yes that's lovely to hear about these moments.

One of the other things, obviously Treasure Islands, as in you know the contact time, precious time with students has been a little bit different this year, but even before Covid or now, if I wanted to ask you to what would be the teaching prop or the pedagogy that you would take to your treasure islands? But that you couldn't live without, that you think would be really essential to give students a good learning experience in your subject. What would it be?

KW: I guess for me, having an online platform, now I'm saying Teams here, but any kind of learning platform like that where you can do collaborative teamwork and have projects that you can build and develop on them would probably be what I'd want to bring to my desert Island because I think and what it sounds like really, from listening to both Matt's is that there is, when you have group-based projects that they can work on and that they can see as being applicable to you know real life things and that may help get through things and having to take some type of responsibility for that problem solving. So that they're not just simply being given the question and then told how to answer it. When there are all these variables that you have to negotiate whether in music context or whether they're engineering projects or whether you're learning to put together a film product, that you need to have this kind of collaborative space where you can start to kind of hammer out these ideas, so that would be my pick.

Great and I think from your example and from the lightbulb moment, that I got as well, it's not, if you talk about Treasure Island metaphor like little mini islands within your big island, but in a way that also the islands are bridged.

So in your example it was quite important that the groups knew what the other ones were doing because that was motivating as well, which I think is really interesting, where the technology enables you to do that or not.

KW: I think that bridging is so important for students because I think, you know, they're going to have to go into the real world and work with people. And sometimes if you're at University, you can kind of coast through to some extent. You don't necessarily have to be that student that's super eager and driving themselves, but if you're not aware that other people are doing that then you don't understand what opportunities you're missing out to take advantage of everything that's being given to you.

And I think it's the students that really click that there's a lot of opportunities here, and if I take advantage of them, it's going to put me a step ahead. Those are the people that tend to be able to go on and succeed. And I think sometimes if you were a student that fell into seminars that were always weak seminars, you could miss that boat. So being able to say, look at what other people your age doing and look at what you could be doing. It's just so important.

Great thank you, mechanical engineer Matt.

MM: Well, I've suddenly become the guy who starts a conversation. Something from a pedagogic research paper, something I thought I'd never become.

We're ready, we're ready.

MM: If I can't do it on this desert island, where can I do it Tunde! So it's a it's a 1986 paper called 'Cognitive conceptions of learning' by someone called Thomas Shuell in America. So I'm going to I'm going read his quote

because this underpins, I think, everything I've done in learning and teaching over last 10-15 years. The teachers this is a quote from that paper.

"The teacher's fundamental task is to get students to engage in learning activities that are likely to result in their achieving the desired outcomes."

Constructive alignment. So far so obvious, and then he goes on to say:

"Remember that what the student does is actually more important in determining what is learned than what the teacher does."

Again, so far so obvious. Such a simple idea but I think many of us forget that all the time. I mean, you know when I'm when I'm traipsing across campus to go and give a lecture and I'm worrying about my lecture slides. What I'm going to say. Nowadays I'm going to worry where I'm delivering it live or prerecording it. What support resource are there?

All these things I'm worried about me, and so often I think you forget about what it actually is the students will be doing in order to learn this stuff. Apart from sitting down listening to me talk for a couple of hours at a time.

So I've since I discovered that paper, I think all my teacher has been guided by this simple idea. So now whenever I adopt a new module or design a new one, I start with the principle of what do I want students to be able to do at the end of this course? Not what do I want them to know. What do I want him to be able to do?

And then the first thing I do is I don't think about lectures yet, I build a foundation of activity. Things students will be doing with each on their own with each other to develop skills. And that's my first point. And after that, then I fit in lectures, feedback opportunities. I fit those in around the activities.

So I think in short, I've developed a process where I throw in some lectures to underpin learning activities. I don't throw in activities to spice up a lecture course, which I think I've been guilty of in the past, and I think I can see that happening. So, my aim is still to teach the same syllabus. But do it in a way that engages students in activities that deepens what they're learning, deepens their learning. But at the same time allows them to develop some important skills.

So if I was going to take one thing to Treasure Island, it would be that principle. I guess it's active learning at its heart

Yes, yes, that's fantastic. Such a nice, beautiful summary of learning design as well, but yes so active learning, yes?

MM: The thing I like most about that is that if my colleagues are listening to this podcast, if any of them do, their eyes will be rolling back in their heads to hear me quote a pedagogic research paper. That's not something I do all the time.

Oh that's beautiful and I think you know your summary of that as well.

Yes it was spot on.

Matt, music industry Matt! Yes, what is your teaching prop or pedagogy?

MF: Well, it's been interesting to hear how Katherine and Matt have been talking about engaging students in a collaborative way, in both their examples and devising activities for them to do.

And certainly one of the things that has been very notable for the music entries in that in it since the pandemic is the loss of sociality. Whilst digital communication technologies have been very welcome, it's made me realise it's no substitute for being in the room with other people, and so I'm

going to make it, despite how Katherine's example of using Teams is fantastic, it's something I'm certainly going to go away and try to adapt and modify for my own purposes, but I'm going to make a case for the pen and the provocation.

Great.

I think sometimes the best teaching prop is marker pen and a white board and a provocation to students to engage them in a conversation. And there's so many things that I can provoke them with. If they're reading the music industry news and those types of things I can go in with a question and that can fill an hour seminar and an hour's lecture.

Sometimes, occasionally, I'll just leave a week open where I can do that and go and talk about whatever's current, whatever is happening because the demand on all aspiring musicians or music practitioners is to be aware of what's going on in the industry and be aware of trends and themes and things, and so just to test that knowledge and what you get out of that very often when students to express themselves - one you get a sense of the level of understanding where you're set up to and the gaps that you need to fill. But also you get some great debate and some great ideas and some you know an expression of beliefs and values and those types of things which are really important in terms of career development.

And I still haven't probably found a better way of facilitating that type of debate, in a very low-tech simple format, just go in and get people to start engaging in common. Get them in the room and engage them in conversation. And in lots of ways, that's very often a very beneficial way for me to deliver what I need to deliver.

MM: The parallels with engineering design are incredible there, the way you are speaking there, it's getting students around the table to discuss an idea together and therefore refine and evolve that idea just by conversation with the most basic marker pen on pad sketches. It is exactly the same foundation for engineering design as it is in your teaching that. So that's really interesting, actually.

KW: Yes, I think then. I mean, I think what I find so interesting is you guys are right. Like a lot of what you do is so it's so practical in some ways and sitting down with a pen and paper and just kind of looking things out and working as groups in that it is so important.

And then in some ways, even though I'm not doing it with a pen and paper, it's what I'm doing as well on Teams. I think in in some ways with media students, what they're interested, in what they've come to University for is to use media, so they want they want to do all that technical things and a lot of our students are super comfortable with social media. But they don't know how to use any type of platform that would be used in actual industry and so in some ways what we're doing is we're kind of combining this idea of introducing them to, you know, programs that they would actually be using in industry, so getting them to use Teams but also getting them to use things like Davinci which is a film editing software and things like that.

And even though right now everything's remote, when we're actually doing this we're usually all in a room together, so it's kind of like, you know, sitting over a blueprint, only your blueprint is, you know obviously films, it's going to be digital in some ways. But I think what's nice about all of the groups is talking about the way these students need to communicate with each other. And to share information in order to make sense of these

bigger problems. And it seems like we're all doing that, but we're taking it from, you know, our different media approaches. Whether that's our sorry, disciplinary approaches. Whether that's the engineering or music industries or media studies. So it seems like there's a lot of similarities in that.

Great yes, fantastic.

So we're on the Treasure Island. We've had some fabulous learning, collaboration, problem solving. I am also guessing that you might sometimes would like to withdraw and have a bit of respite and rest. So I'm going to ask, when you're not teaching, what would your luxury item be on these treasure islands, that you would like to relax with?

KW: My husband asked me what I wanted to take and I said I'd like to take him, but unfortunately, he's not an item. And so, but he's a good craic. So it wouldn't have been too bad, but he came up with the item I should bring with me, which is he thinks I should be able to bring my whole kitchen and that should be counted as one item, because I do love to cook and it's my stress reliever. So plus if you're on an island you can, you know, cook things you don't want food poisoning, so that's my pick. I'd bring my kitchen with me.

That sounds lovely what do you like cooking?

KW: Pretty much anything I love cooking Indian food or Korean food or I like doing kind of the Canadian stuff or just experiment.

MM: At this point, can I request that I'm stranded on the same desert island!

Yes, I was just going to say! I was just going to say that sustenance is very important for learning. You know, in the Maslow hierarchy. But

also, I think when we talked about collaboration, the best collaborations and chats and discussions happen over the dinner table.

So yes and especially Matt, with your international project, that would be a lovely dinner table to have when I'm sure you would have loads of different kinds of food.

MM: We need wind turbine too, right? To get to run the cooker.

So what would be your luxury item?

MM: Well, when I first read it I thought what do I spend a lot of my time doing there? I'm decompressing from work and I'm on Twitter a lot but then. But then I reread the brief and it said to relax. And one thing Twitter doesn't help me do is relax, it does the opposite. So I threw that away. So then I started thinking about what, what do I do to relax and over the summer. I've always been a cyclist, like I've been cycling commuter for many years. But I realised I've lived in Liverpool for 34 years. And I know south Liverpool, south of University like the back of my hand is where I've always lived, but I very rarely go north of the city, so I knew the north end very, very badly. So I started what I called just to myself until this moment. urban cycling safaris.

So I'd pick a postcode, get on my bike and cycle there. But I've discovered some fantastic places in areas that maybe I didn't even think about going before. They're not on my normal routes. Particularly the faded industrial heritage in Bootle, and then the Sefton Coast, which I'd only ever been to Crosby before, so I've already discovered some new stuff. So I thought, right. I'm going to take my urban cycling safaris and transfer them to a desert island cycling safari, so I hope it's big enough today for me too.

Yes! Fantastic. There is space on the Desert Islands, and I love this postcode lottery idea. I think that has helped us in Covid. So many people have said, we had a discussion last week with some other colleagues and they were saying you know, they've learned the shopkeeper's names surrounding themselves. You know, it's a lovely connection with the local area isn't it? Okay, thank you. Yes, that's brilliant.

Okay. music. Matt?

MF: Well, mine's obviously music. So where I was making the case for old tech in terms of teaching. I'm going to make the case for new tech. It's not quite an item but my Spotify account. I don't think I could live without that really.

As someone who's always been obsessed with music, I would say take my record collection, but it's really not, I don't use it anymore or my CD collection. All those various different things. Everything I want to listen to is contained in Spotify so I could provide the background music to Katherine's dinners with

And then cycle it off afterwards! Brilliant.

MF: For the certain, yes, that's the one thing that I couldn't really be without a need to have music on the island to keep me sane.

Okay, lovely, thank you so much. That was a brilliant discussion.