CHAPTER 10:

HOW DOES JULIE ANDREWS ESCAPE THE NAZIS WITH ACTIVE LEARNING?

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A new land in the Realm of Pedagogy welcomes the Zillas. Leaving behind the Dwarves and their delving, our three travellers enter the fair realm of the Elves, who call their land Constructivism.

The Elves very much enjoy singing, which Markzilla, who dislikes all musicals except The Rocky Horror Picture Show, *and Mikezilla who prefers a very cheesy adaptation of* The Ugly Duckling, *meet with scepticism.*

So when Olivzillia comes dancing and singing out of the town of Active Learning, and yodels that she will explain the region through the medium of The Sound of Music *– well, there is hesitation.*

But their journey so far has made them brave, and Markzilla thinks he has discovered how a spoonful of popular culture helps the medicine of learning about pedagogy go down. 'Wrong musical!' trills Olivzillia, 'You need to start at the very beginning.[1]'

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1 A very good place to start.

Behaviourism and the ten principles of instruction, which we covered in chapters seven and eight, both focus on learning as something that goes on in an individual's brain. That's important but there's more to learning than that, as you'll see as the book goes on.

Learning takes place in specific contexts, with other people, and it's not confined to our brains. In this chapter, we'll look at how physical action and mental action can combine to build our skills and knowledge.

To explore those topics, we're asking: **How does Julie Andrews escape the Nazis with active learning?**

The Sound of Music

The Sound of Music is probably best known as a film starring Julie Andrews. Although more than half a century old, it remains hugely popular in the UK, where it's usually shown on at least one television channel on Christmas Day. At other times of year, thousands of enthusiasts dress up to attend live 'Sing-a-long-a *Sound of Music*' events.

Although the events in the film seem unlikely, it was based on an autobiography, which was made into two films in Germany, the first of which was adapted into a Broadway musical before it took its current form. On its release in 1965 it was the highest-grossing film of the year, winning five Oscars, including best picture and best director.

The film is set in Austria in the late 1930s. Its basic plot is about a nun, Maria, who has not yet taken her vows. While preparing to do so, she's sent as governess to the seven children of a widowed naval officer, Captain von Trapp.

Long story short: the children all learn to sing together and then make use of their talents in very clever ways. To make a short story slightly longer, Maria is beautiful and rebellious, while the captain is stern, serious and sad about his late wife. He doesn't allow his children to have fun or to sing. Instead, they spend their days marching around the grounds of their country estate. When Maria turns up, she's horrified by this regime. She defies their father's strict instructions and teaches them to sing. When the captain hears them, his heart melts and his heart starts to melt towards Maria as well. They fall in love and marry.

Their marriage takes place at the time of the *Anschluss*, the annexation of Austria by Nazi Germany. Although this was welcomed by some Austrians, within a few days 70,000 people had been arrested, imprisoned or sent to concentration camps. Those who opposed the annexation lost their jobs or faced death. During his honeymoon, Captain von Trapp fails to respond to a telegram from Admiral von Schreiber of the navy of the Third Reich, requiring him to accept a commission to serve. On his return, soldiers arrive with orders to escort him immediately to the German port of Bremershaven, making it clear that he's being offered no choice. However, the captain is a patriotic Austrian who opposes the Nazis. So the family has to flee the country, and they use a singing performance as their cover.

To get more personal, *The Sound of Music* is a wonderful movie, a glorious movie, and a delightful movie. The film's early reviews reflect that. The *New York Post* refers to its 'strangely gentle charm that is wonderfully endearing', and *The New York World Telegram and Sun* calls it, 'the loveliest musical imaginable'. It's also an archetypal movie, spawning a host of parodies. Google provides more than ten million links to these, including the Covid-19 song (Serban, 2020), and the von Trapped family's lockdown songs (Kwai, 2021).

There are some differences between Maria's autobiography and the film. Many of these simply require a suspension of disbelief. People in Austria at the time didn't have North

American accents, but the actors do, resulting in exchanges along the lines of (although not exactly like): 'Heil Hitler', 'Hey, you too, Chad, you heil Hitler too. Nice one, bro.'

Compared to the essential suspension of disbelief with any musical (in real life people rarely suddenly interrupt their regular activity to break into a choreographed song and dance number) we'd suggest this is a minor issue.

Active learning

Something that does happen in real life is the other component of the question in this chapter: active learning. Active learning is a broad umbrella, which we introduce here and then go on to explore in more detail in other chapters.

> *Learning through active participation will always involve learners being cognitively active – engaging their minds in their learning. It might also involve an actual physical action (such as making a poster, building a model or doing an experiment), but will always involve cognitive action. Just reading or listening to a lecture is insufficient; understanding is actively constructed by the learner through thinking about the new material, processing information and making connections with previous learning or established ideas*
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> (TESS-India, 2022).

This is an approach to learning that involves being 'minds on', as well as hands on.

The idea of *understanding being actively constructed by the learner* is at the core of the set of approaches covered in the remainder of this book. It's what theorists mean when they talk about constructivism. In true constructivist style, rather than go into detail about constructivism as an overarching concept, we'll present various examples of constructivism (active learning being one) and let you piece together an understanding of it from this and consecutive chapters.

This is to give you, the reader, the experience of learning from a constructivist approach and not because we only realised when the book was about to go to print that we hadn't provided a detailed explanation of the term.

During the pandemic, as universities moved swiftly towards an online delivery method without the necessary resources or support, it was very easy to fall into 'Death by PowerPoint', simply converting all forms of teaching into presentations, videos and screencasts. This approach makes education a very passive experience for learners, an experience sometimes referred to as 'passive learning'. The majority of the work is done by the person who gives the lecture, writes the book, or produces the video, rather than by the learner.

Content-focused learning asks learners to read or watch or listen – absorbing another person's brainful of information into their own brain. It isn't the only way to learn, and it's not necessarily the best way for everything to be taught. For one thing, assimilating information without engaging in any other form of activity makes it difficult to acquire a skill. It's hard to teach people to communicate, or to present, or to solve problems, or to drive a car, simply by placing information in front of their eyes. You don't develop a wide variety of skills by reading a book, you mainly acquire the skills associated with reading a book. If you need to practise and apply particular skills or particular knowledge, then you need to move beyond simply reading books and watching videos – a point we frequently make.

This active engagement happens all the time when you engage in informal learning. You have a practical problem –

you might need to change a tyre, or put up a shelf, or fix a bit of equipment. You search for information online, you watch a video, and then you try it for yourself. If you still can't do it, you search for more information, or you review what you've already looked at, or you find a forum and ask questions, or you check to see if any of your family and friends can help you out. You assess your understanding by checking whether you can actually do what you wanted to do. Assimilating information is part of an active process but it's rarely the entire process.

Active learning is an alternative to passive learning. It cognitively engages learners, using a variety of tools to provide different ways of approaching learning, whether this takes place in a classroom or at a distance. These active options can be bolted on later, but it's best to take them into account when starting to plan teaching and design learning.

Active learning in practice

Active learning is about prompting students to engage with materials, with each other, and with educators. They can do this in different scenarios in which they try skills out for themselves, or they can apply those skills in familiar situations. It's also about making sure that students build their own understanding, forming connections between what they already know and what other people know – building their own knowledge, not just taking in information.

Rather than simply reading, watching and listening, learners engage in a wide range of activities: finding, demonstrating, practising, developing, interpreting, investigating, designing, and creating. If the learning outcomes of a course are written in terms of active learning, then many of the relevant verbs may already be at hand. For example, the learning outcomes on a podcasting course might read something like:

By the end of this course you will be able to:

- *explain the mechanics of how sound waves work;*
- *source and critically review resources;*
- *create a short podcast;*
- *evaluate user experience and reactions.*

Working backwards from these intended outcomes for the learner, the course will need to inspire creativity, scaffold some of these processes, and provide opportunities for explaining, sourcing, reviewing and evaluating. Instead of students being expected to sit back and simply absorb information from their tutor or another expert, they can be guided to engage in a variety of learning activities.

Some of the learning comes from the tutor, some from existing resources, some from talking to peers, some from feedback, and some simply from making mistakes and realising that one approach works better than another. There are many different opportunities to learn, as long as active learning is implemented with care.

Issues with active learning

People who are used to thinking of learning as attending a lecture, and online learning as watching a video, may think that selecting an arrow or moving a cursor is active learning because it involves moving a finger on a keyboard or trackpad.

For example, a piece of online training might be classified as 'interactive' because it requires users to select multiple tabs, or to click on various parts of an image to reveal information. This doesn't make learning more active, it simply makes the act of accessing and assimilating information more difficult. The important thing is to ensure that learners engage in a variety of ways rather than simply consuming information.

Another wrong assumption about active learning, which is covered in more detail in Chapter 13, is that it should come with minimal instruction, and that learners should be left to work things out themselves from first principles.

Evidence from multiple studies has shown that simply leaving students to get on by themselves does not work nearly as well as guiding the learning process (Kirschner et al, 2006). Part of the skill of the educator is keeping students engaging actively with the learning process while also being able to build on what's already known.

However, learning is built on a basis of knowledge and understanding. Active learning and passive learning are often intertwined. There's no need for every aspect of learning to be active. For example, if students are asked to create a short podcast, they'll need to find tools and write scripts but eventually they'll need to read an article on how to open and configure the relevant software, or watch a video tutorial in which someone explains the use of mixers, or find some other source of expertise. Assimilating information provides a foundation for active learning.

Bloom's Taxonomy classifies elements of the cognitive domain of learning. The original taxonomy has six major classes: knowledge, comprehension, application, analysis, synthesis, and evaluation. Bloom and his colleagues noted that these could be ordered in different ways. They preferred this arrangement because 'the objectives in one class are likely to make use of and be built on the behaviours found in the preceding classes in this list' (Bloom et al, 1956, p18). Knowledge is present in the taxonomy, but it alone is not enough – learners need to work with that knowledge in different ways. A revision of the taxonomy (Anderson et al, 2001) identified six cognitive processes: remember, understand, apply, analyse, evaluate and

create – all of them active ways of engaging with different types of knowledge, and all going beyond simply reading or viewing.
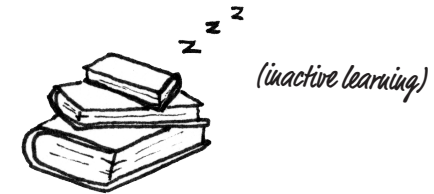
(inactive learning)

Applying active learning

Active learning is an umbrella term. It brings together concepts covered in many of the chapters in this book: constructivism, social constructivism, experiential learning, reflective learning, and learning through doing. It's also a classification that uses everyday language. 'Active learning' sounds like something everyone can understand, whereas constructivism and constructionism sound complex and confusing.

One of the greatest advantages of active learning is that it aids retention. Students are much more likely to be able to remember something if they have done it themselves, worked out how to do it themselves (with support where necessary), made a few mistakes along the way, and asked a few people some questions about how they did it. When they start putting skills and information into their own contexts, those skills and information become more personal and easier to remember (Michael, 2006).

The approach also redefines what education is for. It's not simply about producing school-leavers and graduates who know a bunch of stuff and can memorise more stuff. It's about enabling people to go out, make changes, do things for themselves, and have an impact on the world around them because they've acquired skills rather than just a list of things that they remember.

It's also a transformative experience. When you learn to do something for yourself and you bounce ideas around and you listen to other people's perspectives, these activities change your own perspective. You're not just reading a book, you're talking to other people about the subject and their perspectives on it and presumably potentially learning an awful lot about their perspectives and why they have those perspectives.

The answer

In *The Sound of Music* the active learning begins when Maria teaches the children some of the fundamentals of music. A major difference between the film and real life is that in real life the family were already accomplished singers, but in the film the children had never been allowed to sing and didn't know how to do it.

Maria uses the song 'Do-re-mi' to teach them how to sing. This is very active learning because they learn to sing and they learn about the underlying structure of songs and music by actually singing. They learn about individual notes and the relationship of those notes to each other in a scale, they hear them and sing them back, they practise them, and they add words.

Do-re-mi or, more technically, tonic sol-fa, is a way of understanding the notes of a scale and the intervals between those notes. Maria describes its elements as 'the tools you use to build a song'. She begins by introducing the note names but when the children look puzzled she quickly adjusts her teaching style to make the learning more active, adding a mnemonic rhyme.

The children try the new skill out, do some more practice, then use the notes that they just learned about to create a new song, with words. The basic concepts are broken down into small elements, and Maria's way of teaching pulls the children in, immediately involving them with the process of singing and with learning through singing.

Once they've learnt that song, which includes the rudiments of Western music, they continue to learn to sing, and their singing skills develop. A lot of the songs they learn then become part of the plot. They sing a folk song for their father. They sing at a family puppet show, and they sing at a music festival at the end, which is a critical part of the story. At that point, they've gone from not being able to sing at all, to singing in front of a huge audience.

Singing at the music festival in Salzburg earns the captain a brief reprieve from being marched off to join the German navy. The plan of the Nazi officers who sit in the front row is that he will be led off to war as soon as the event ends. After leading the audience in a stirring rendition of the patriotic song 'Edelweiss', the family sings a song of farewell.

While they're expected to be backstage, waiting for the results to be announced (they win, of course), they escape through a back door, drive away and escape over the mountains to Switzerland, which the film's script writer has conveniently moved a lot closer to Salzburg in order to increase the dramatic effect. So learning to sing together gets them to the music festival and the music festival is what enables them to escape the Nazis.

Of course, none of this was planned when Maria first taught the children to sing. One of the positive aspects of active learning is that if you learn to apply a set of skills, you can reapply those in different scenarios. You have more flexibility than if you simply learn a set of facts. This means there is an emergent property to the educational process. By learning and applying skills you open up new possibilities, and put yourself in a position to learn new things. Whereas, if you have a very tightly designed

approach in which the curriculum specifies certain facts that must be assimilated, you have more limited opportunities. In that case, the learning situation has a very clear-cut resolution, which means opportunities to be creative, to take advantage of emergency situations and therefore to be responsive to changes in your immediate environment are a lot more limited.

Active learning can also build confidence. If you develop a new skill, particularly one you never suspected that you were capable of, you can gain an immense amount of confidence. This means you are more capable of going on and doing more things.

The children in the film start off almost cowed, militaristic and marching around in little starched uniforms. Active learning gives them the confidence to rebel against and successfully challenge their father's perspective. They get the confidence to wear clothes made of curtains in public, when Maria makes them outfits to play in. They gain the confidence to sing in front of the family and then in front of large groups of people. In the end, they are able to perform beautifully at a huge national music festival even though the entire front row is full of Nazis intent on taking their father away.

Overall, Julie Andrews (Maria) escapes the Nazis because she uses active learning to give those around her the skills, the flexibility and the confidence to manufacture and take advantage of an escape opportunity.

Tips for practice

When planning for active learning, relegate content to the bottom of the list. Always start by asking, 'What are the students going to be able to do by the end of this course?' not, 'What am I going to teach them?' Starting with the content, starting with the stuff, is exactly the wrong place. The important thing to ask

is, 'What skills are the students going to take away from the course in order to act on the world around them, to create things for themselves, and to have some sort of impact?'

Think about what students need to be able to do when they have completed the course, the activities they need to engage with in order to be able to do those things, and the ways in which you'll check that they can do those things. Only at that point do you need to start thinking in detail about course content. Focus on other things before focusing on what you intend to upload or what you'll ask students to read.

Fifteen years ago, many people saw content as king and looked for the best things to view, the best things to read or the best videos to watch. The focus is now much more on what the students are going to do, with the content being seen chiefly as a resource to enable them to do it.

Look for opportunities to introduce active learning. If you find yourself giving students reams and reams of text to read or multiple videos to watch, look for opportunities to add an active element. This will change how students approach their learning. If classes consist of, 'Read this thing, then read this other thing', students will either bypass that work or consume the content in a very passive manner. If it's, 'Read this thing and then use that information to create another thing', they will have opportunities to engage in a very different way.

Active learning can be made really meaningful, so encourage learners to apply the skills and information within their own contexts. That's one of the things that Maria does really well in *The Sound of Music*. She helps the children to learn songs that have meaning for them and their family. If she'd been working with cockneys in the East End of London, the song might have been completely different – 'Dough, some dosh, go treat yourself; Ray, a bloke from down the pub…'

When focusing on skills, it's important to build those up gradually. That's another thing Maria does well, she starts really simply and makes sure the children have got the basics before moving on to the next step.

Always keep an eye on workload and cognitive load (as we saw in the previous chapter). You don't want students to feel overwhelmed, so avoid piling up the active components. Think realistically about how much time each of those will take. Not how much time they will take you, as an expert, but how much time they will take a novice. Active learning can be very resource and time intensive for both educators and students and so it needs adequate curriculum time. Although it's a great way to build up confidence, learners can also lose confidence quickly if they can't do something and can't work out how to do it.

If you have the opportunity to take part in a singalong of *The Sound of Music*, or of another musical that you love, then these provide opportunities to engage in active learning. Unlike other shows, you're not passively sitting there, you're engaged, you're part of the experience. And that feels much more participative, fun, engaging, all those sorts of things. Part of engaging with an activity and performing a skill is that you get to see how other people do it and why they might do it differently from you, and there's learning there as well. It's a shared experience, just as life is a shared experience.

These are a few of my favourite references

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