

Podcasting in higher education to enhance  
student's deep research skills and retention

by Gregory James O'Keefe, PhD

Fukuoka Jo Gakuin University Bulletin.  
Faculty of International Career Development

福岡女学院大学紀要

国際キャリア学部編抜刷 Vol. 10, 2024

# Podcasting in higher education to enhance student's deep research skills and retention

by Gregory James O'Keefe, PhD

## Abstract

Podcasting is an ever growing learning tool being implemented into university level courses, but how is it actually used in the classroom? Research shows the positive effects of podcasting on student motivation and information retention. The research needed for students to speak freely as an expert on a specific topic can take months. Students are able to use research techniques such as deep learning in a real environment with actual results. Students also research using parallel pairing, which is a technique that has students research similar topics separately but perform their final podcast as a pair. The act of recording one's voice is a record of one's efforts and ability at a specific point in their life. This is often seen as a positive experience by students. They also learn the importance of opinions versus facts. They learn to delineate and identify when someone is speaking from a factual standpoint based on research versus a personal opinion. This research paper also shows how project-based learning techniques (PBL) can be implemented to create the environment needed to carry out such a course. Students are given a high level of autonomy to coincide with their hectic job hunting schedules. Deadlines are used to keep students on track to finishing everything on time and within a specific timeline. This style of class requires specific knowledge from the instructor to help guide the students to the final moment when they perform their podcast.

*Keywords:* project based learning (PBL), active learning, student generated podcasts

## Introduction

Podcasting has, without question, become a new form of media and information sharing. The long-form interview/discussion format has made its way throughout the world of information sharing over the last 20 years. Similar to YouTube, even though the production value is often lower than mainstream media, the content seems real and closer to the heart of the listener. Radio has done this for many years but the difference is the focus on specific topics rather than sponsored entertainment marketed towards a large listening audience. This has been key to the success of many podcasts. A compilation of various research on podcasts was published in 2018 (Llinares, Fox and Berry 2018) which introduces the concept of student and university produced podcasts. It especially seems to be a natural fit for university courses in the post-pandemic era.

While legacy or mainstream media has also been known to move in the direction of sponsorships and sometimes even political views, some podcasters try to stay away from relying solely on sponsorships for income. This is where the separation of the two mediums are made. This is not to say podcasts are not without their faults. While podcasts offer a vast amount of information, sometimes this information can be diluted with uninformed commentary thinly veiled as a source of what seemingly sounds like a designated authority. This can cause foundational problems with the information base of many listeners. Depending on the theme, this information could do good or harm if the listener does not have the ability to discern various forms of information. This sort of uninformed commentary is often the argument of mainstream networks to delegitimize podcasting. As an educator, I believe the point of education is to only search for the truth. The truth can only be determined through the philosophical rules of deduction based on relevant information rather than biased information manipulated through sponsorships or political ideologies. In short, podcasts are perfectly designed for a university classroom environment that supports and encourages critical thinking and debate.

Unfortunately, even in the modern world, receiving the whole truth is nearly next to impossible, but this, in itself, is a truth. Therefore whenever evaluating new information, previously made conclusions should be flexible and willing to accept new information that can update past conclusions

with newly found facts. Unwillingness to accept such new information, is a possible sign that an individual is not in search for the truth but is instead participating in a confirmation biased spiral based within an ideological position. To prevent this from happening to students, critical thinking skills need to be honed to teach them how to evaluate information equally in the search for the truth. They must be taught not to overly categorize in favor of one viewpoint creating what seemingly is the only logical choice, when limiting themselves to other possibilities. As the instructor, my job is to not only assist students as a supporter but also as the oppositional voice to whatever they find through their own research. This will hopefully lead them to broadening their minds to other opinions. In general, the average person believes they are open minded until certain beliefs are challenged, but this does not mean people should not have certain core values that should be maintained and protected. The definition of these core values should always be in a state of conscious negotiation with the influx of new information by all who seek truth.

## Methods

This paper discusses two pedagogical theories in the form of long term projects resulting in student produced long form podcasts. This paper will act as a predecessor to a future paper I plan to write on the student's reactions and opinions about how the class itself is run along with real life case studies of the results of students' projects. These long term projects present several challenges for students and teachers. The first challenge is the grading process. Since this class consists of several tasks that are graded. Students are graded on presentations, their podcast and their final report which includes all their notes from their podcast research. They are also graded on overall performance throughout the year. The grading process will all be explained in detail in a later section of this paper. The next hurdle is the ability for the student's to focus on their research over a long period of time. Most classes with longer projects may only last weeks. This project basically takes up the whole academic year. Students choose their theme at the beginning of the first semester. They are not allowed to change the theme for the whole year. While this poses no problem for some students, others struggle researching their topic throughout the year. This is mostly due to the lack of research methodology and experience rather than students reaching the saturation of their theme. These are just some

of the weaknesses that need to be addressed when implementing a PBL based class plan.

## Project Based Learning (PBL) \ Active Learning

I have written about project based learning (PBL) and active learning in past papers. Specifically with visual sociology projects through the production of student produced short documentaries (O'Keefe 2023). I change this approach for the 4th year students due to time and participation constraints many students have while they are job hunting. Preparing for the podcast format, allows students to perform research in and outside of class giving them the autonomy they need during their final year at university. This is assisted by the instructor through several previously determined deadlines to confirm the quality of their work. Students are made aware if their research content meets the certain standard of the group. Many students are not used to an autonomous environment. Some students are satisfied with the format. There is a spectrum that spans from students who over perform while others need structure that sets their goals for them. This is all monitored through the periodical deadlines made by the instructor. Even with the periodical monitoring, the goal is to give students their independence.

PBL has shown to be an effective way to build creative thinking, strengthen both problem solving and decision making skills. It also fosters independence while enhancing cooperative group work. This is specifically true for language learners (Beckett and Slater 2018). Long term projects allow students to observe their own growth as well as the growth of other students much easier than in a standard course. Ironically autonomously based courses like this need to be thoughtfully planned out to produce the correct fit for various levels and types of students. Hopefully over time students will find this process motivating. Bolliger (2013) found that integrating student generated audio files into online learning increased the level of motivation and engagement of students. Other studies have found how this process fosters self-awareness of a student's actions. As stated in a paper by Adkins (2021), "Active learning techniques in the classroom may then offer a fruitful platform for students to engage in the critical reflection connected to both values and compassion." He performed post-class interviews which revealed a "shift toward self-transcendence and an increase in compassionate orientation" for some students.

One study performed a survey of 124 teachers currently implementing PBL in their classrooms.

They distributed questionnaires using a structural equation model (SEM). SEM models represent various aspects of theoretical and/or observable pieces of whatever is being researched. The constructed model helps visualize the relationship between the variables being questioned. The Almulla (2020) study found a significant relation “between the PBL method and collaborative learning, disciplinary subject learning, iterative learning, and authentic learning, which, in turn, produced student engagement.” This has been found in other studies as well (Konig 2019). This is something that I, as an instructor, have already observed in my own seminar classes. The engagement level is much higher than any of my other classes. Barak and Yuan (2021) performed pre and post-class questionnaires as well as focus-group interviews after the course was completed. A “positive influence on cultivating students’ perceived innovative thinking” was clearly observed. Students were not only observing their own behavior and study patterns, but felt they grew in the ability to generate questions which promote a perceived vision of growth.

Like all techniques, PBL will always need to be updated for the current time. This is ever so clear with the rise of AI. 15 years ago teachers worried that students who just googled something, would never learn. While this may be true, this also brought the importance of critical thinking back to the classroom. Knowing the facts is one thing, but discussing them is another. Boss and Kraus (2018) wrote what they deemed a field guide to student projects in the digital age. The importance of deeper learning needs the support of engagement and motivation of students to be successful. It has only been several years since they wrote their field guide, but with the onset of ChatGPT, the game has changed. Students as well as many people will rely on such AI systems to do many tedious basic writing assignments or to generate basic ideas. There is a positive aspect of this. This will bring in a new age of both students and instructors who may spend less time worrying about certain routine writing tasks and focus on *problem-finding* and *problem-posing* (Boss and Kraus 2018).

I will be mentioning more about how rubrics will be used in grading later in this paper, but the same rubrics will be used as quantitative data

on the students' attitude towards the program. There will be several types of rubrics used: teacher-based assessment, Self-assessments and peer assessments. This will help observe the behavioral outcomes (Guo et al 2020) of students throughout the whole year long course.

Scheduling the periodical meetings can be challenging. Time is not always on the side of the professor when designing such a course. Time is required to correct writing assignments and engage with students about the papers on various topics for critical thinking classes. Active learning is meant to balance out this problem in university courses, by upping the student's active participation in the class, while leaving the instructor to act in more of a coach/guide role, rather than a lecturer. This is a complex process which needs to be learned from the ground up. A rather comprehensive book on the subject of effectively applying active learning in university classrooms was written by Bean and Melzer in 2021. This book confirmed many of the challenges I had already faced when implementing my ideas for the course I currently teach.

### **Incorporating university student generated podcasting into course curriculum**

The use of new technology in the classroom doesn't always need to completely replace actions in the classroom, but rather enhance them. There are studies that researched how active learning can utilize e-technologies to do just this (Coldwell et al 2011). Studies like Coldwell seem dated with the recent developments in AI, but the concept is similar to what I have implemented, which is that classroom activities should not always be replaced but enhanced or polished. One example from over 20 years ago was the introduction of the electronic dictionary. The electronic dictionary saved students many hours a week by changing the 60 to 90 second action of looking something up in a paper dictionary versus only taking seconds to do the same task with an electronic dictionary. Many would argue this slows the process of learning because the ease of looking something up removes its importance from the action itself causing students to forget what they looked up. This could also be true when using a paper dictionary as well, but due to the frequency of words easily being looked up with an electronic dictionary it was more noticeable. The truth is, anyone who has studied a language seriously would say the electronic

dictionary has assisted them in speeding up the language acquisition process. In essence, both of these thoughts can be true at the same time depending on who is utilizing the newly found tool. The difference is, some students learn to use such a tool to enhance rather than replace. If used properly, an electronic dictionary enhances the speed and ease of learning for such a student. But if used to supplement the use of what the brain is supposed to do, then it will become an ever growing weakness and cause a plateauing of their learning curve if not a complete stall.

Currently, many young students, mostly from unlimited internet access, face the problem of wanting instant answers and have grown impatient thus stopping to think for themselves. This example goes for AI as well. Students who use AI to replace their work will become underachievers, while those who use it to enhance what they do in an efficient way will accelerate their learning to speeds never witnessed by the human race. No matter how much their learning is sped up, students still need a system so they can practice outputting what knowledge they have gained. This is where podcasting comes in.

The definition of a podcast can also be a little misleading because of the various styles. Podcasts can be either long or short-form. A long-form podcast can go on for hours gravitating through a range of different subjects which can be labeled more of an open discussion with a focus on the interests of a guest. A short-form podcast tries to cover a specific topic in 10 to 20 minutes and tends to be one person rather than an interview format. It has been shown that students can see the value in both of these forms and use them as needed (Van Zanten et al 2012). It can be a challenge to keep up with long-form podcasts that can run for hours, so it is common for many long-form podcasts to break down their content into shorter clips and republish them to make for a more time efficient format.

As stated previously, the replacement of actions should never be the goal of new technologies. This is the same with new forms of pedagogical systems like PBL or active learning. Introducing technologies to these frameworks needs to be done in a thoughtful manner. There have been several studies discussing the implementation of student generated podcasts into an active learning framework (Fernandez et al 2009; Phillips, B. 2017; Hall and Jones 2021; Yeh et al 2021; Jolley 2022). One study

performed an empirical study of over 90 students who produced 13 podcasts over a four month period (Fernandez et al 2009). This study also showed the power of enhancement rather than substituting for classroom activity. According to the study, podcasting increases the connection with the teacher which in turn increases student generated motivation. This opportunity gives students a chance to create, perform and reflect on what they have done. Introducing students to this process which can apply to actions beyond podcasting is invaluable to them as future members of society.

Using student produced podcasts have also proven to be effective for output practice in language learning courses. The recording of one's voice is very personal for many in both a conscious and unconscious way, which can lead to shyness. If students can breach the barrier of shyness by creating material using their own voice, their learning pace is more likely to increase. The observable increase can only be noticed with a conscious application of the method assisted by reflection and review (Yeh et al 2021). On the other hand, passive learning will not work well towards improving the attitude towards studying. The conscious process has a much stronger effect on student motivation. There are studies showing positive results on student motivation when podcasting is used within an active learning framework. This could be compared in a similar fashion to student presentations, but instead, are recorded so students can observe their own performance. This process merges knowledge from various disciplines to raise student interests by generating information based on what they are interested in as individuals. (Diphon and Leyh 2023)

Of course podcasting used in higher education within the active learning framework is nothing new. The benefits have been researched for well over 15 years. It helps create more engagement between the instructor and students as well as student to student learning (Tynan and Colbran 2006; McLoughlin and Lee 2007; Harris and Park 2008). Podcasts also create a strong reinforcement of information learned in the classroom. The amazing thing about this process is the low cost. While high quality recordings may need somewhat expensive equipment, it is still not necessary. If a small sacrifice on quality is permissible, students can just use their smartphones. This way student generated content is quite easy to produce and then uploaded for other students to listen to. The concept of

information sharing itself seemed like a perfect fit from the start.

It has been shown that students who are aware of the performance levels of other students in an active or even a passive way, raise the competition and the skill level within the class as a whole. The Fernandez et al (2009) study was done nearly 14 years before this paper was written, but even recent studies are showing the power of using such techniques as podcasting in the classroom. Hall and Jones (2021) proposed that the use of student-generated podcasts can “promote engagement, cognition, learning, and creativity in experimental learning opportunities” to help augment what students have acquired from textbooks. Hall and Jones (2021) had students create 12 podcasts on the topic of health psychology. They found that student retention and reflection rose as students needed to fully express what they had learned.

This leads to another major benefit of student generated podcasts on their ability to work on their descriptive skills (Sandoval 2020). This is especially true in Japan where students in recent years have found their ability to describe what they are feeling in mostly one word or very short answers. This creates a communicative pitfall for students after they graduate and join the workforce. Students who can only use one or two words to describe their feelings are in danger of the words being freely defined in ways they don't expect. If this occurs, they will have even more difficulty trying to explain what they were truly attempting to say leading to very problematic communicative hurdles. This goes for Japanese and for many students whose second language is English as well. To assist students in learning how to express themselves better, many university classes have shifted to presentations for active learning. This was a step in the right direction, but it is the back and forth conversation and discussion aspect of the podcast that separates it from classroom presentations.

Jolley's (2022) article on student-generated podcasting gives some clear and easy to understand examples of how to apply some methods to enhance classrooms that are working with audio recordings of students. She also gives some realistic explanations of the somewhat time consuming audio editing process as well as the importance of topic choice. Topic choices should be mostly left to the students and only monitored by the instructor. The instructor may want to create a large frame of choices for students to use as a guide to assist in choosing a topic. This large frame will

also help students learn to focus on more detailed aspects within the frame of information given to them. One example could be when the class is asked to talk about Sakoku during the Edo period, some students may choose to talk about Dejima. Some students may even go further and talk about what life was like for the Dutch living on Dejima. I have had one student talk about the various animals the Dutch brought to Japan to show the Tokugawa Shogunate. The skill of zooming into the details makes students become better researchers and communicators while being able to not only listen but to add to the conversations they are taking part in.

If communication skills are improved, this will most likely affect student's confidence levels. Phillips (2017) showed there are positive effects on students' mental attitude towards language learning through the use of student-generated podcasts. In general, students who took time to research a subject and create their own podcast had positive attitudes towards learning due to a feeling of ownership to what they have created. As a teacher, I personally think student-generated podcasts are not only part of the class work, but also act as a snapshot of each student's speaking style while they were in university. This will be a valuable memory for many students in the future which can be reflected on long after they even graduate.

While student generated-podcast are on the rise, podcasting for information gathering can also be an effective way for students to learn (Nataatmadja and Dyson 2008). This is just one way the antiquated way of lecturing at a set time of the day may become a thing of the past. Problems arise when the information offered from such podcasts are not scrutinized for accuracy. One mistake made by many listeners is to automatically default to thinking that someone with a professional sounding voice is an expert about what they are talking about. Many responsible podcasters will constantly remind their listeners they are not experts. But that said, even then people will still default to thinking a podcaster is an authority on any certain subject. The mistake would be to ban or prevent such podcasts from being used by students. Instead students need to be aware of how to critically view and receive information from not only podcasts but from mainstream media as well. Students should be able to filter information in a way that allows them to take it all in while controlling their own opinions rather than being controlled by whatever information a certain information

provider is distributing. This can be achieved through understanding that new information is welcomed while simultaneously viewing such information critically by neither fully accepting it nor rejecting it.

Podcasting is becoming a secondary supplementary replacement for some traditional lectures that are information based rather than discussion based. Podcasts have been used in multiple subjects from the sciences (Avila and Lavadia 2019) to help support students who are learning extensive content and complex principles (DeHart and Wentzel 2020). This situation is becoming more common in the social sciences, social work (Singer 2019) and medical fields as well (Kaplan et al 2020). Because many podcasts break down information in smaller bits of 10 -20 minutes which tend to adhere and compliment the average young adult's attention span. This makes topic retention much higher than a traditional 90 minute lecture set at a certain time. While the traditional lecture may not disappear, its role in learning will mature into a more active environment for students to confirm and test what they have learned previously from podcasts and other self-learning methods. There are some instructors who may see podcasting as a threat to higher education, while that can only truly be determined over time, if used wisely, podcasting can only enhance and create a more efficient learning system for students (Lonn and Teasley 2009). If that is true, teachers will begin to see a larger percentage of students taking an active role in class.

Podcasting can also create debate between students which could be a key to unlocking the thoughts and needs of students in the ever changing technological world (Moore 2022). Strickland et al (2021) explains how the discussions taking place in podcasts are not only helpful, but will most likely be deemed necessary in the near future to solidify concepts learned in lectures and through other mediums. There are many concepts taught in classrooms that students are just not prepared to always absorb fully. They may remember some details but it is choppy in their memory. It isn't until they understand a concept fully that they will fully appreciate what it is about and how it relates to their own studies. Podcasts create an environment for students to explain what they know and then review it for accuracy to create a clarity of understanding about the topic at hand. It is ironic that universities which have always been seen as the bastion of debate and discussion need to be shown the importance of the discussions

taking place in podcasts.

Heilesen (2010) researched three reasons universities should consider rapid changes in teaching styles. He wrote how universities should modernize and open themselves up to the outside world. What better way than to have students discuss the world in realistic ways through podcasting. University leadership often fears the costs of overexpansion in a time of smaller budgets. Podcasting is relatively cheap but effective to display what kind of learning is taking place at a university. Lastly, the recognition of the student demand for better and more modern goods and learning tools. Modernizing through a media format that can be used across specialities can become a universal way to create a modern feeling while promoting learning. Epistemological changes that used to take 20 years are currently happening in 2 years. But in many cases universities have become quite antiquated and are systematically unable to change with times at such a high pace due to costs and aging teaching staff who have created a set curriculum. These hurdles need to be addressed.

## Grading

Grading is always a challenge when implementing any form of PBL or active learning. Even the greatest amount of effort will result with various levels of subjectivity depending on the instructor. While naturally subjective, it doesn't need to be unfair and enigmatic either. Grading needs to be performed through a fairly transparent system in which students can understand how certain actions can improve their grade. Before applying PBL to any class, the measurement of a student's actions needs to be considered carefully (Guo et al 2020). Rubrics have become a fair and easy explainable way to grade students for subjective situations such as presentations. Students can observe their score because it is broken into categories, so they can visibly observe where or what they need to improve.

This course uses the rubric system offered by the IDoceo teaching assistant app for the iPad. The IDoceo app can create any rubric necessary to grade students in any situation. It also automatically records the grades in a database which can be averaged out with various weights for the final grade at the end of the semester. For example, this course uses a rubric for

participation which counts for 10% of the final grade while two presentation rubrics and one for the final project are worth 30% each. This is automatically averaged out in the app for the instructor which makes the final grading process very efficient. This way students are given insight into the course of action taken by the teacher so they can understand how they were graded. This all creates a rather ideal situation for grading in such a subjective learning environment.

This course uses three separate types of rubrics: self-assessments, peer-assessments and teacher generated assessments. While there are three types of assessments only the teacher assessments are used for the final grade. The self and peer assessments are used to help the instructor see into the students view of the situation. This can reveal various important factors that allow the teacher to adjust future actions or to address misunderstandings. In the case of the peer assessment, students are sent a rubric through the IDoceo system which they fill out resulting in a grade. Comments are also allowed as well. The peer assessment can reveal that students are harmoniously working together or not. Especially in the case of Japan, many Japanese will rarely openly complain but when given the chance in a questionnaire they will express their feelings of discontent openly. This helps the instructor recognize potential tension within a team of students allowing for various forms of intervention and/or prevention. This course doesn't particularly rely on team work as much as my junior seminar which was written about in my past paper (O'Keefe 2023). Although, in the final podcast, the students broadcast with another student who has researched a similar topic. This style of research is called parallel pair research which is discussed later in this paper.

The self-assessment rubric gives the teacher insight into how the student views their own work. There is no secret that underperformers often feel they do well, while overperformers are not satisfied with their performance (Dunning 2011). If teachers can identify both over and under performers, they can instruct in a more accurate way for each individual student. The seminar classes tend to be small groups of no more than 15 so such individually focused instruction is very manageable. Underperformers could be shown in various ways how they have been underperforming by introducing them to the work other students have done. Over performers should be shown how they should be careful not to

do all the work themselves when they are working within a team environment. The over performers can be shown the road to becoming a leader while under performers can be given insight into how their actions affect the outcome of their project. Sadly, many students rarely see outcomes outside of testing results in the current system. If their grades are of an acceptable level, they feel they have been working hard enough. This is where the current system has failed them. PBL style courses hope to overcome this handicap by introducing students to the core meaning of learning and research.

I have personally observed many cases of under performers who have participated in PBL projects and had a GPA over 3.0. The individual feels that the GPA is the most important. In many ways, when following the system, they are absolutely correct and should not be faulted for this. The problem will be more noticeable when they leave the school environment after they graduate. The goal of the International Career Development department which I work in is to create the future female global leaders of Japan. This can only be done by teaching students the importance of interdependence and the strength of working together. The conundrum is that Japan is seen as having a culture that supports group work, but in reality it is usually 1 or 2 people within a group that do the brunt of the work while the others are along for the ride. This can even be observed in the teaching staff as well, so it can be easily labeled a chronic career long problem in Japan. Both self and peer assessment rubrics hope to bring this to the conscious attention of students, so they can improve their actions to support a more balanced and/or active learning environment.

The teacher assessment rubrics are based on the instructor's observations as well as data collected from the self and peer assessments. The teacher assessment for this course is set up similar to that of the Junior seminar described in a previous paper (O'Keefe 2023). I will briefly explain how the rubrics are constructed, but for a more detailed description please refer to my previous paper. The overall performance rubric has 5 categories rated 1 through 10: quality, creativity, consistency, participation, and attitude. The most important evaluation starts with quality at the top and ends with attitude at the bottom. There are arguments that mention grading completely different attributes with the same level of importance is unfair, but it must be realized by the instructor

that a 10 for attitude is much easier to attain than a 10 for quality or creativity. This balances out the final grade in a fair way. This system is loosely based on how EIKEN<sup>1</sup> students are graded for their interview tests.

The second rubric used has 5 categories to evaluate their presentations and for their final project. There is a slight difference. The top quantifier is content followed by style then grammar. The bottom two categories are preparation and attitude. Similar to the participation rubric, the level of difficulty rises for categories found at the top of the chart and decreases for the lower ones. For further details please refer to my previous paper (O'Keefe 2023).

### Course scheduling

This sort of class must be thoughtfully put together so all the students finish their podcast within the allotted time frame to allow for editing and various content corrections. The syllabus should reflect this process and be strictly adhered to. This course offers a level of autonomy that many students are not used to. Autonomy can be defined in many different ways, but for the sake of this course it means to have the students work autonomously on a project with a scheduled course of deadlines. The students need to balance their research time with the deadlines. One of the goals of this style of teaching is to make students aware of the usage of time as well as the quality of work they produce with their time. Students who use their time well will either finish early or mediate their work so they comfortably finish before the deadline. If a student leaves work until a few days before the deadline, most often than not, it will be reflected in the quality of their work. Quality of content is considered when grading each student more than whether or not they have made their deadline.

Students are given clear instructions of what they have to do by a given date as well as what level of work is expected. The instructor lays out a plan of action to help students budget their time wisely. This podcast project is rather large, but because the deadline seems so far off some students will procrastinate. Students are informed their grade is based on

---

<sup>1</sup> EIKEN is an abbreviation of Jitsuyo Eigo Gino Kentei (Test in Practical English Proficiency), one of the most widely used English-language testing programs in Japan. (<https://www.eiken.or.jp/eiken/en/eiken-tests/overview/>)

the quality of work they submit, so if they submit sub-par work they will lose points on their final grade. One way to prevent this from happening is to have periodical progress checks which are basically mini non-graded deadlines before the final graded one. This keeps many students on track. If they are falling behind on quality, this will be noticed during the non-graded mini deadlines and corrected. This hopefully prevents any major problems with the quality of their final project.

### Choosing themes and honing research skills

By their fourth year, students should have attained a certain level of research skills, but rarely have these skills been used for long-term projects. Plus, even though they have learned research skills, they don't necessarily know how to perform deep research until complete saturation. Many students think they have reached saturation even though they have only scratched the surface of whatever they are researching. This is why the instructor needs to explain some of the caveats of choosing a theme that are inherently a part of this course.

First, when asked to choose a theme, the instructor should be sure to emphasize to the students the importance of carefully choosing what will be researched. By their fourth year of university, students have chosen themes for various presentations. In general these presentations are short in nature and are often researched for no longer than a week or two. They need to realize the podcast theme is the same as their graduation thesis. Plus, because they perform their podcasts as a pair, they are also obliged to build up quality research for their team. As mentioned in other parts of this paper, even though students basically work and research on their own, the quality of the final podcast is affected if one of the students underperforms. Currently, in the class I teach, I give students several weeks before choosing their final research theme. This gives them time to check out information available on many possible topics they may choose. I also try to guide them to topics that are not often researched and to steer clear from ones that are common. I suggest that it is usually best for them to discard their first few choices.

Several problems can arise if students don't perform a proper preliminary check on information availability of the theme they are contemplating to research. One problem that arises is that students find themselves in a shallow pool of information. It is hard for them to change

their theme because they are connected to another student for their final podcast. This is why it is important for them to realize, once they have chosen their theme, there is no going back.

Another situation that has arisen is even though students perform their preliminary research, they fail to realize they will have to research this topic for a full academic year. Their interest in the subject starts to lag making it hard for them to move forward. Once they lose their motivation the overall quality of their work suffers. They tend to never get into the gritty details because of their dwindling motivation.

During the year, students also perform several group research projects so they can be shown some simple researching techniques. One is the basic use of Google Scholar and other available databases as well as control+f searches on webpages. Students are taught the importance of searching for combinations of words rather than just one or two phrases. Sometimes even rearranging certain search entries will cause different articles to appear. Also the use of different search engines will offer different results. Students are then taught the difference between news articles, and research papers. When researching, many students forget to build their bibliography as they go. They are shown how to do this along the way which helps save time when they are referencing articles within their papers as well as when writing out their final bibliography. Finally, one of the new additions to research is Chat GPT or other AI applications. While students should never use these tools to write their paper, they are allowed to use it as a tutor or brainstorming tool.

### Parallel pair research

There have been studies on using group work for podcasting (McLoughlin and Lee 2007) and how they can be effective (DeHart and Wentzel 2020), but this course tries something a little different. In Japan, many 4th year students have somewhat erratic schedules due to their job hunting activities, so doing group work for a long term project may cause them unnecessary stress. But on the other hand, the power of students working together produces a more in depth understanding of the topic and theme for their podcasts. I decided to have students do their podcasts in pairs, but at the same time they do all their preparation separately. I created a process for them to follow so there was less confusion about their roles. I call it parallel pair work.

As a pair, two students choose similar interlocking topics that have a relationship with each other. Their research is not exactly about the same theme. There is a slight difference on what they focus on. One real life example would be two students who chose Erik Erikson's book "The Life Cycle". Erikson's book gives a broad overview of how children develop an identity on their path to adulthood. One student researched actual case studies of how children, with the support of their parents, can successfully navigate through the stages. While the other student researched adults who have either successfully or unsuccessfully navigated their way into society. Each research topic was connected by a certain framework and both had separate angles offering a deeper pool of information.

Once they have researched their topics, they create an online document with questions they would like asked for the podcast interview. Their questions are intertwined and are relevant to each of the topics. This keeps the podcast flowing with new information and, depending on the students, more free talk is very welcomed into the discussion.

After completing their podcast, the students add slides that assist in telling their story to the listeners. Some students prepare graphs while some prepare various images that support what they are presenting on. Finally students need to pass in all their notes and research findings for a final grade. I have personally observed this process of parallel pair work to be very engaging for a clear majority of students. They enjoy the level of autonomy the course offers while also ending with a clear result beyond what they could have imagined.

### Contents of podcasts and reflections on past podcasts

As mentioned earlier in this paper, this course gives students a high level of autonomy especially when choosing their own theme that they will be researching for the whole year. Since students are not allowed to change mid-term they need to learn to push through the malaise that will sometimes set in when doing deep research no matter how difficult it gets. There are students who ask if they can change, but the answer should always be a polite "no". The instructor can show them how they can reevaluate their research technique and adjust the angle of their research so as to generate more references or stimulate new ideas. This is an important skill for students to learn because many people get stuck in false paradigms of thought and their progress will plateau. They falsely think

they have reached saturation but are often far from that point. They need to realize that imagination can lead to real outcomes with excellent results. They just need to learn to step back from their work. This is an invaluable skill that can only be gained through practice.

While they have autonomous power to choose their theme, there are a few caveats. I ask them to stay away from certain topics that are often popular with students their age. Some examples would be environmental, gender related or activist topics. While I personally think these topics are important, they have often been overly saturated with ideological information and such presentations seem to often end up the same. Plus, I think they are often the “go to” subjects for students that want, what they see as, an easy theme. I also give the topics that other students have done in the past few years and ask the students not to choose those either. This isn't to limit them, but rather to expand their view into many other limitless areas that they could never have thought of without being given a small push away from the common choices. This is a sort of implementation of the Pygmalion Effect. Even though I put a cap on certain subjects, I do challenge students by saying if they can put a new angle on any of these themes, they are more than welcome to research them. If they can do that, I have absolutely no problem with them researching those topics.

Some examples of projects from the class of 2023 were the effects of commenting and rating on internet sites and how they are recognized as trusted sources. They felt this was one way society is being directed towards certain topics creating a whole new form of media created by society as a collective. They found that no matter how people realize it is irrational to believe comments from people you don't know, they still follow comments when purchasing products or choosing various services and destinations found on the internet. They discovered patterns to discern from reliable to unreliable sources realizing that comments can be easily manipulated.

Another group researched how pop culture was made popular and the path it takes to turn certain entertainers or products into pop icons through the use of the populous. Their approach dove more into past popular phenomena rather than present day. They discussed post-war fashion and pop trends and how people in society fall within 5 levels of varying interest. Level 1 being the most interested in the product to level 5 being not interested at all. These various levels are all considered the

market. The goal is to get all consumers to level. The students described certain social marketing techniques that have been used to entice each group to move up the levels.

The class of 2023 students had a very high classroom interaction. About roughly 80% (12 students) of the students took part pro-actively while the remaining 20% (3 students) seemed to struggle with the autonomous aspect of the course. The 80% who all finished on time still had different levels of achievement ranging from excellent to acceptable. While the other 20% struggled just to keep up with the scheduling aspect of the class. All the struggling students were all given special instructions after they weren't making their non-graded deadlines. Even with the support, 3 of the 15 students ran late with their projects while one didn't finish. Students who do not perform a podcast need to write out a full graduation thesis which is twice as long as the length of written material needed for those who perform the podcast. The final result was that all the students passed, while the one who didn't perform her podcast wrote her full thesis and passed it in on time.

## Conclusion

The question that needs to be answered isn't whether or not podcasts are a viable way to implement PBL into a university course, but rather how it should be done. In a perfect world, students would have already accumulated the credits needed to graduate and would only be required to take the senior seminar class in their final year, but this isn't always the case. While job hunting does present a scheduling challenge, the autonomous nature of the course allows students to work outside of the classroom, removing any excuses for not finishing on time. Job hunting, while time-consuming, is not only a physical scheduling problem but also a mental barrier that many students struggle with. Meetings and interviews take time but don't require a whole week to complete. Students need to be made aware of this so they can improve their productivity through time management. This may be the most important point they will learn throughout this course.

There is also evidence that students gain an understanding of deep learning when researching and performing for their podcasts. They realize that information is vast and limits are mostly self-imposed rather than exclusively environmentally limited. The input of the information they gain

from their research, while invaluable, has so much more meaning to them after they discuss their topic for 45 minutes or more. The output of that information within a discussion makes them realize the importance of exchanging information with others. Parallel pairing has also shown to be a very powerful technique for students. Since both students are researching a similar topic, they are often amazed that their partner has come up with completely different information. Some of that information strengthens their own findings or shows completely opposite results. This realization makes a lasting impression on many students. This is why I personally find the podcast research more effective than writing a standard graduation thesis. They literally witness the deep meaning of research and discussion.

As an instructor, there are still many adjustments I plan to make while implementing podcasting into the senior seminar course. Eventually I hope to make these podcasts available to younger students early on in their university life, so they can be introduced to this style of discussing what they have learned rather than just reporting or presenting on it individually. This will hopefully create a stronger atmosphere of learning rather than just the individual regurgitation of ideas that seemed to have repeated through time. The only way to change this is through the experimentation of new ways of learning.

## BIBLIOGRAPHY

- Adkins, A. M. (2021). Values, Compassion, and the Role of Active Learning in an Introduction to Sociology Class. *Teaching Sociology*, 49(4), 319-334.
- Almulla, M. A. (2020). The effectiveness of the project-based learning (PBL) approach as a way to engage students in learning. *Sage Open*, 10(3), 2158244020938702.
- Avila, E. C., & Lavadia, M. K. S. (2019). Investigation of the acceptability and effectiveness of academic podcasts to college students' scholastic performance in science. *Indian Journal of Science and Technology*, 12(34), 1-8.
- Barak, M., & Yuan, S. (2021). A cultural perspective to project-based learning and the cultivation of innovative thinking. *Thinking Skills and Creativity*, 39, 100766.
- Bean, J. C., & Melzer, D. (2021). *Engaging ideas: The professor's guide to integrating writing, critical thinking, and active learning in the classroom*. John Wiley & Sons.
- Beckett, G. H., & Slater, T. (2018). Project-based learning and technology. *The TESOL encyclopedia of English language teaching*, 1-7.
- Bolliger, D. U., & Armier Jr, D. D. (2013). Active learning in the online environment: The integration of student-generated audio files. *Active Learning in Higher Education*, 14(3), 201-211.
- Boss, S., & Krauss, J. (2018). *Reinventing Project-Based Learning: Your Field Guide to*

- Real Projects in the Digital Age.
- Coldwell, J., Craig, A., & Goold, A. (2011). Using etechnologies for active learning. *Interdisciplinary Journal of Information, Knowledge, and Management*, 6(3), 95-106.
- De Hart, K., & Wentzel, L. (2020). The use of podcasts and videocasts by tertiary accounting students in distance education. *South African journal of higher education*, 34(1), 267-287.
- Diphooon, T., & Leyh, B. M. (2023). Traveling Concepts in the Classroom: Podcasting as an Active-Learning Tool for Interdisciplinarity. *Journal of Interdisciplinary Studies in Education*, 12(S1), 29-49.
- Fernandez, V., Simo, P., & Sallan, J. M. (2009). Podcasting: A new technological tool to facilitate good practice in higher education. *Computers & education*, 53(2), 385-392.
- Guo, P., Saab, N., Post, L. S., & Admiraal, W. (2020). A review of project-based learning in higher education: Student outcomes and measures. *International Journal of Educational Research*, 102, 101586.
- Hall, N. M., & Jones, J. M. (2021). Student-Produced Podcasts as a Teaching and Learning Tool. *American Journal of Distance Education*, 1-13.
- Harris, H., & Park, S. (2008). Educational usages of podcasting. *British Journal of Educational Technology*, 39(3), 548.
- Heilesen, S. B. (2010). What is the academic efficacy of podcasting?. *Computers & Education*, 55(3), 1063-1068.
- Jolley, R. (2022). Active Learning: student-generated podcasts. *100 Ideas for Active Learning*.
- Kaplan, H., Verma, D., & Sargsyan, Z. (2020). What traditional lectures can learn from podcasts. *Journal of Graduate Medical Education*, 12(3), 250-253.
- König, L. (2021). Podcasts in higher education: teacher enthusiasm increases students' excitement, interest, enjoyment, and learning motivation. *Educational Studies*, 47(5), 627-630.
- Llinares, D., Fox, N., & Berry, R. (2018). Podcasting: New Aural Cultures and Digital Media. New York: Palgrave Macmillan.
- Lonn, S., & Teasley, S. D. (2009). Podcasting in higher education: What are the implications for teaching and learning?. *The Internet and Higher Education*, 12(2), 88-92.
- McLoughlin, C., & Lee, M. J. (2007). Listen and learn: A systematic review of the evidence that podcasting supports learning in higher education. *EdMedia+ Innovate Learning*, 1669-1677.
- Moore, T. (2022). Pedagogy, Podcasts, and Politics: What Role Does Podcasting Have in Planning Education?. *Journal of Planning Education and Research*, 0739456X 221106327.
- Nataatmadja, I., & Dyson, L. E. (2008). The role of podcasts in students' learning. *International Journal of Interactive Mobile Technologies*, 2(3), 17-21.
- O'Keefe, G. (2023). Visual Sociology: Transforming the classroom environment by applying project based and active learning. *Fukuoka Jo Gakuin University Bulletin. International Career Development*, Vol.9, 15-34.
- Phillips, B. (2017). Student-Produced Podcasts in Language Learning-Exploring

- Student Perceptions of Podcast Activities. *IAFOR Journal of Education*, 5(3), 157-171.
- Sandoval Zapata, M. M. (2020). Podcast-based lessons: a useful tool to improve university students' descriptive oral skills. *Comunicación*, 29(1), 52-68.
- Singer, J. B. (2019). Podcasting as social scholarship: A tool to increase the public impact of scholarship and research. *Journal of the Society for Social Work and Research*, 10(4), 571-590.
- Strickland, B. K., Brooke, J. M., Zischke, M. T., & Lashley, M. A. (2021). Podcasting as a tool to take conservation education online. *Ecology and Evolution*, 11(8), 3597-3606.
- Tynan, B., & Colbran, S. (2006, January). Podcasting, student learning and expectations. In *Proceedings ASCILITE 2006: 23rd Annual Conference of the Australasian Society for Computers in Learning in Tertiary Education*. University of Southern Queensland.
- Van Zanten, R., Somogyi, S., & Curro, G. (2012). Purpose and preference in educational podcasting. *British Journal of Educational Technology*, 43(1), 130-138.
- Yeh, H. C., Chang, W. Y., Chen, H. Y., & Heng, L. (2021). Effects of podcast-making on college students' English speaking skills in higher education. *Educational Technology Research and Development*, 69, 2845-2867.