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Learning labor economics through narrative interviews on the work that people do

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ABSTRACT

I implement in a labor economics course a project-based assignment involving narrative interviews on the work that people do. Through experiential learning, students investigate how social, political, and economic forces shape the evolution of an occupation. Students apply one or more of the three neoclassical models — the neoclassical model of labor-leisure choice, the neoclassical model of labor demand, and the neoclassical model of the labor market — to an occupation to explain why it is in decline. Furthermore, students hone their social skills through collaborating with their groupmates, conducting narrative interviews with strangers, and delivering a TED-style talk to their classmates. I draw on student presentations and reflections to demonstrate learning outcomes.

1. Introduction

> "People are hungry for stories. It's part of our very being. Storytelling is a form of history, of immortality too. It goes from one generation to another." Studs Terkel

Narrative inquiry is the process of gathering information to produce a narrative. As Connelly and Clandinin (1990) explain, "people by nature lead storied lives and tell stories of those lives, whereas narrative researchers describe such lives, collect and tell stories of them, and write narratives of experience." While narrative inquiry is used in a range of fields including literary theory, philosophy, anthropology, psychology, theology, and art history (Mitchell, 1981), it is not commonly employed in either economic research or teaching. One exception is Dalton (2010), who tasks students in a principles of macroeconomics course with interviewing someone who lived through a specific economic event such as the Great Depression or the 1970s stagflation.

Connecting narratives to economic theory can increase student engagement and enhance learning. After all, "humans are storytelling organisms who, individually and socially, lead storied lives" (Connelly and Clandinin, 1990). I describe how I incorporate narrative inquiry in a labor economics course. In the spirit of Studs Terkel, an oral historian and the author of *Working: People Talk About What They Do All Day and How They Feel About What They Do*, students conduct narrative interviews to understand how social, political, and economic forces shape the evolution of an occupation.

Narrative interviews are a form of experiential learning — "the process whereby knowledge is created through transformation of

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experience" (Kolb, 1984). McGoldrick (1998) was the first to discuss how Kolb's (1984) experiential learning cycle can be employed in experiential learning in an economics course. Kolb's experiential learning cycle comprises four stages: concrete experience, reflective observation, abstract conceptualization, and active experimentation. First, the learner undergoes a *concrete experience* through observing or participating in an activity. *Reflective observation* entails thoughtful probing of what the learner has witnessed. In inductive learning, the learner engages in *abstract conceptualization* to formulate theories that explain their experience and observations. Finally, the learner tests the implications of their theories in novel situations, as a form of *active experimentation*.

In my course, the narrative interview is embedded in a project-based assignment. Project-based assignments center on authentic and complex questions. While the costs to instructors and students of conceptualizing, executing, and assessing these assignments are non-negligible, the benefits are manifold. Project-based assignments are particularly suited to helping students attain Hansen's (2001) proficiencies: (i) access existing knowledge; (ii) display command of existing knowledge; (iii) interpret existing knowledge; (iv) interpret and manipulate economic data; (v) apply existing knowledge; and (vi) create new knowledge. Furthermore, project-based assignments can be a vehicle through which students practice the four C's of 21st-century skills: critical thinking, creativity, communication, and collaboration.[1]

This project is designed with two key learning objectives in mind. First, I want students to be able to apply economic models of the labor market to a real-world context. Second, I want students to hone their communication and collaboration skills. Surveys of employers indicate that the ability to work in a team and to communicate effectively are among some of the most coveted attributes in employees (Jerald, 2009; NACE, 2022).

In this project, students — in groups of two or three — investigate why an occupation is in decline. In addition to the narrative interview, which constitutes primary research, students conduct secondary research by gathering information from text, video, and audio sources. Students apply one or more of the three neoclassical models — the neoclassical model of labor-leisure choice, the neoclassical model of labor demand, and the neoclassical model of the labor market — to an occupation to explain how it has evolved over the decades. They synthesize their findings and craft a coherent narrative to present to the class. Finally, they reflect on their learning experience, communally and individually.

2. Structure of the project-based assignment

I introduce narrative inquiry in a project-based assignment in an intermediate labor economics course at the National University of Singapore. Students are often economics majors or minors, ranging from sophomores to seniors. The prerequisites of the course are the first of a sequence of two intermediate microeconomics courses and the first of a sequence of two econometrics courses.

The class meets for a 95-minute lecture each week. In addition, students are assigned to one of three tutorials, which meets for 45 minutes each week. Project groups of two or three students are formed within tutorials.[2]

In the first half of the semester, we study labor supply, labor demand, and labor market equilibrium. The labor market has undergone radical transformation in the past century. Factors such as education and immigration affect the skill composition of labor supply, while globalization and skill-biased technological change, among others, shape labor demand. In this project, students explore how the interplay of these and other factors explains the evolution and decline of certain occupations. Students embark on the project after the midterm exam and present their findings toward the end of the semester. While they may draw on material from the second half of the semester, they are not expected to do so.[3] The instructions to students are provided in Appendix A.

Students are assigned a set of prompting questions: How has an individual business evolved? How has the industry evolved? Is the occupation in decline because of a shift in labor supply or a shift in labor demand? Which factors are most pertinent in explaining the decline: international trade, offshoring, automation, computerization, higher education levels, government policies, changing tastes and preferences, or something else? Is the occupation vanishing or is it metamorphosing?

The project, which is worth 15% of the final grade, comprises: (i) researching and analyzing an occupation in decline; (ii) synthesizing their findings; (iii) presenting a narrative to the class; and (iv) reflecting on their learning experience, communally and individually. Fig. 1 shows how the components are related to Kolb's experiential learning cycle. The narrative interview is a *concrete experience*, during which students practice *reflective observation*. Students then integrate their observations with the models and concepts they have learned in class — *abstract conceptualization*. Finally, class discussions and written reflections provide structured avenues to reinforce *abstract conceptualization* and to explore *active experimentation*.

This project provides a platform for students to develop Hansen's (2001) proficiencies, with particular emphasis on accessing, displaying a command of, interpreting, and applying existing knowledge. Furthermore, the multifaceted nature of the project offers students opportunities to hone the four C's of 21st-century skills, as shown in Fig. 1. A group project is, of course, synonymous with collaboration. Students engage in critical thinking in conducting primary and secondary research, in synthesizing the findings from various sources, and in reflecting on their learning. Creativity is exercised in structuring and designing their presentation. The most distinctive element of this project is that students communicate not just with their peers but also with strangers — the people whom they interview.

[1] The Partnership for 21st Century Learning is recognized as a pioneer in conceptualizing the four C's.

[2] In Spring 2019, the 36 students enrolled in the course formed three groups of two students each and 10 groups of three students each. In Spring 2022, the 32 students enrolled in the course formed 10 groups of two students each and four groups of three students each.

[3] In the second half of the semester, we cover compensating wage differentials, human capital, wage structure, labor mobility, and labor market discrimination.

Component	Kolb's Experiential Learning Cycle	21st-Century Skills
Research and Analysis		
Secondary research		Critical thinking, Collaboration
Primary research (narrative interview)	Concrete experience, Reflective observation	Critical thinking, Communication, Collaboration
Synthesis	Abstract conceptualization	Critical thinking, Collaboration
Presentation		Creativity, Communication, Collaboration
Discussion and Reflection	Abstract conceptualization, Active experimentation	Critical thinking, Communication

Fig. 1. The components of the project-based assignment in relation to Kolb's (1984) experiential learning cycle and 21st-century skills.

2.1. Researching and analyzing an occupation in decline

Each group identifies an occupation in decline by drawing on their lived experiences and observations, talking to their parents and grandparents, and scouring news articles.[4] One inspiration is a stamp series titled *Vanishing Trades*, published by the Singapore Post Limited, as shown in Fig. 2. The trades featured in the stamp series are a *kachang puteh* (white nuts) seller, lantern maker, *songkok* (cap) maker, goldsmith, cobbler, knife sharpener, ice ball seller, parrot astrologer, cage maker, garland maker, kite maker, and Chinese calligrapher.

Groups within a tutorial must choose different occupations. Fig. 3 lists the occupations investigated by students in Spring 2019 and Spring 2022. Some students chose to research a trade that was personally meaningful. One student interviewed his grandparents who had been cobblers, another student whose family had owned an animal feed production business interviewed his uncle, and a third student who had a passion for growing orchids interviewed an orchid farmer.

Students first conduct secondary research, which include internet and library searches for information and statistics on the occupation. Based on their secondary research, they construct a preliminary framework of their analysis and formulate questions to pose to their interviewee. I emphasize that while they need to prepare for the interview, the questions are merely a guide. To be truly effective in eliciting information, they have to listen and respond to what the interviewee is saying; they cannot just mechanically read a list of questions and record the answers.

Each group identifies at least one practitioner of the trade that they are investigating and arranges for an interview if possible. For practitioners such as cobblers and trishaw drivers who do not usually publicize their business information, students strike up conversations with them as they are plying their trade. I advise students to be respectful and sensitive when approaching potential interviewees. Students should choose a suitable time when the practitioners are neither too busy nor too tired to engage in conversation with them. Some practitioners may be chatty while others may be terse, in which case students may wish to seek out alternative interviewees.

During these interviews — *concrete experiences* — students very often are able to watch the practitioner at their trade, be it sharpening a knife, fashioning a gold bracelet, or repairing a rattan chair.[5] Of course, sight is not the only sense engaged in this experience. Depending on the trade, students may hear the sound of a blade against a whetstone, smell freshly-ground coffee, feel the texture of hand-woven rattan, or taste bread just out of the oven.

Almost all the practitioners who were interviewed had been plying their trade for decades, and hence had a wealth of insights to share, both about the past and the present. Students seek permission from the practitioner to record the conversation. If recording the conversation is either not permissible or not ideal, then they take brief notes (with permission) during the interview and jot down their findings and impressions immediately after the interview. Students ask the practitioner questions about the macro trends of the industry as well as the practitioner's personal journey, such as the reasons for their occupational choice, the human capital they have accumulated, and the challenges they face. Through the narrative interview, students learn how to gather information from strangers by building rapport, asking judicious questions, guiding the conversation, providing verbal and nonverbal feedback, and listening carefully. These are critical social skills that are valued in the workplace but rarely practiced in the classroom. A student wrote: *"Learning how to talk to people, and actually empathizing with their troubles to understand what a problem means is important."*

I tell students that the interview is not solely about the practitioner's spoken words. Students should also pay attention to what is unspoken, such as facial expressions, gestures, and posture. In addition, they should heed the stories telegraphed by the inanimate objects in the workspace. As students will have conducted secondary research prior to embarking on the interview, they may pick up on

[4] We would ideally like to use data to identify occupations in decline. However, unlike the U.S. Bureau of Labor Statistics, the Singapore data that is publicly available includes only very broad occupation groups: managers and administrators; professionals; associate professionals and technicians; clerical support workers; service and sales workers; craftsmen and related trades workers; plant and machine operators and assemblers; cleaners, laborers, and related workers; and others.

[5] I encourage students to take photographs or videos (with permission) of the practitioner at work, both to document the experience as well as to use the photographs as visual aids in the presentation.

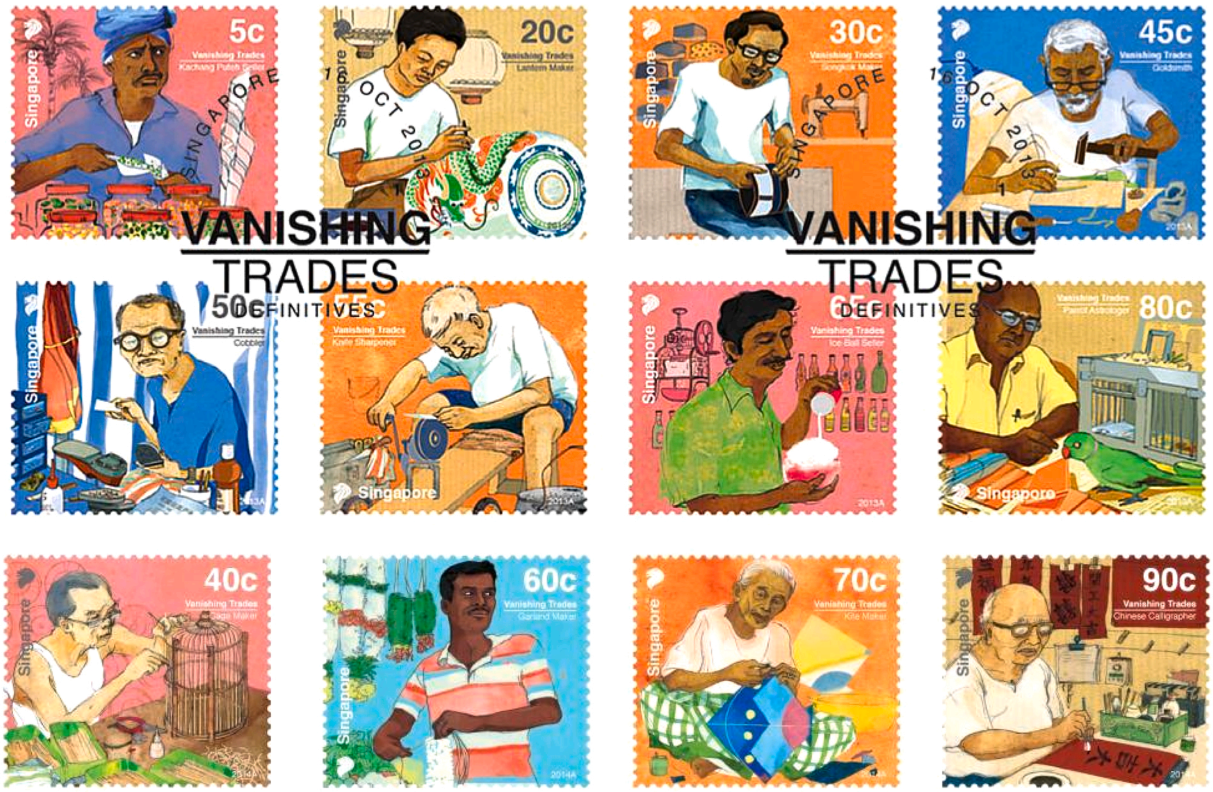

Fig. 2. A Singapore stamp series titled *Vanishing Trades.* Source: Singapore Post Limited.

things that they would not otherwise pay attention to. Students engage in *reflective observation*, perceiving the characteristics of the practitioner, the trade, the people around them, the work environment, and the neighborhood.

2.2. Synthesizing their findings

Students synthesize their findings from their primary and secondary research with one or more of the three neoclassical models — the neoclassical model of labor-leisure choice, the neoclassical model of labor demand, and the neoclassical model of the labor market. These models serve as frameworks for students to systematically examine the evolution of an occupation. As this is an intermediate course, the primary goal is to identify the factors affecting labor supply and labor demand for a particular occupation.

I meet with each group to help them reconcile their observations with the textbook models. In the neoclassical model of the labor market, workers supply labor and firms demand labor. Some students struggle with modeling self-employed individuals who are essentially both the worker and the firm. Being confronted with this duality forces them to think more deeply about the definition of labor supply and labor demand. As the "middleman" — the firm — is dispensed with, the demand for labor is revealed to stem from the demand for goods and services.

In trying to apply economic theories and models to the reality they observe on the ground, students move beyond superficial understanding to probing the meaning of these theories and models. For example, the group studying blade sharpening noted that the work was risky — the blade sharpener had many knicks and scars — and the skills were honed over years of practice. However, the rewards were low. They questioned whether the theory of compensating wage differentials, which states that workers are paid higher wages for risky or unpleasant tasks, *ceteris paribus*, holds for this occupation. What do we need to do to verify the validity of this theory? The group recognized that *ceteris paribus* means that worker characteristics must be held constant. One approach would be to observe the same worker as she switches jobs, and to assess how the combination of wage and job amenities varies across jobs. The group asserted that the job was more appropriately defined as "niche-skilled" rather than "low-skilled." Since honing a skill such as blade sharpening takes years, these practitioners are unlikely to switch jobs. Students discover that measuring compensating wage differentials is difficult if workers do not switch jobs, which is likely to be the case for jobs that require substantial specialized human capital investment.

Furthermore, the group saw the pertinence of general equilibrium analysis — markets do not exist in isolation. The blade sharpener was one of only a few in the city, which would suggest that she has some market power. However, the service she provides has substitutes; rather than paying to sharpen expensive blades, consumers can instead purchase cheaper blades. Therefore, the market for blade-sharpening services is inextricably linked to the market for blades. Since demand for blade-sharpening services is price elastic, the blade sharpener cannot raise her prices substantially if she wishes to retain her customers and ensure a stream of revenue in the

Occupation	Number of Groups	
	Spring 2019	Spring 2022
Animal feed producer		1
Blade sharpener	1	
Cobbler	1	2
Flour and spice miller		1
Fortune teller		1
Getai (vernacular live entertainment) performer		1
Goldsmith	1	
Midwife	1	
Mobile ice-cream vendor	1	1
Mom-and-pop provision shop proprietor	1	1
Newspaper vendor		1
Orchid farmer	1	
Pasar malam (night market) vendor		1
Peranakan *kasut manek* (beaded slippers) shoemaker		1
Rattan weaver	1	
Seamstress		1
Secondhand bookstore proprietor		2
Tombstone designer	1	
Traditional baker	2	
Traditional coffee roaster	1	
Trishaw driver	1	

Fig. 3. Occupations investigated by students in Spring 2019 and Spring 2022.

long run.

The *abstract conceptualization* practiced here is not formulating a new theory or model. Rather, students grapple with how to explain their observations by applying existing knowledge. Faced with incontrovertible evidence of what *is* rather than what *ought to be*, students question each definition, assumption, and constraint, thereby developing a deeper understanding of a theory or model. Consequently, students recognize how a particular component of a theory or model can be recast to better capture the reality of a specific context.

2.3. Presenting a narrative to the class

Students draw on their analysis and synthesis to craft a coherent narrative in the form of a TED-style talk. Presentations are assessed on the following: (i) content, *i.e.*, strength and sophistication of analysis and quality of exposition; (ii) evidence and examples cited; (iii) organization and design; (iv) delivery; (v) originality and creativity; and (vi) degree of student engagement and class participation facilitated by the group. During my meetings with each group, we discuss the thesis, narrative, and structure of their presentation. A student noted that the requirements were *"very unique. which led to [the presentations] being very engaging and memorable while also subjecting us to a rigorous presentation preparation process."* Another student wrote: *"I learned how much effort, planning, and detail goes into a good, memorable presentation."*

The presentations evidenced student learning. Students were able to contextualize the neoclassical models to incorporate the social, political, and cultural realities uncovered in the narrative interviews. Because of the narrative interviews, the presentations had a distinctive element of the personal, and the analyses were nuanced and rich in details. Many groups weaved the practitioners' anecdotes and quotes into their presentations. As a student observed: *"Each practitioner of a trade has their own unique perspective and story to tell. The presentations were very insightful."*

I will illustrate how the narrative interviews enhanced their presentation by drawing on the presentation on midwives. The group explored the evolution of midwives in Singapore from 1960 to the present. In 1960, there were over 1000 registered midwives and hundreds of unregistered midwives.[6] By 2018, the number of registered midwives had fallen to 117 and there were no unregistered midwives.[7]

[6] Source: Oral history interview of the experiences of a midwife, Sumitera Mohd Letak, recorded in 1997, National Archives of Singapore.
[7] Source: Data.gov.sg.

In the 1960s, 40% of births occurred at home with unregistered midwives.[8] The group shared an anecdote related to them by a retired unregistered midwife whom they interviewed. Healthy-looking females who chose to have hospital deliveries would be quizzed by the registered midwives at the hospital: *"You are normal, you have a bed at home. Why do you come all the way here just to give birth in a corridor?"* Such anecdotes powerfully relayed a sense of what the norms used to be, which can be very different from the norms of today.

The group argued that legislation is the main reason for the decline in midwives. Beginning in the mid-1970s, increasingly strict regulations were enforced on midwives until in 1999, unregistered midwives were banned from practicing altogether.[9] Meanwhile, registered midwives are drawn from the pool of registered nurses on the clinical track. While these nurses may choose to pursue a specialization, of which midwifery is an option, in reality, hospitals are unlikely to support such a pursuit. According to their interviewee, an assistant professor of nursing who was formerly a midwife: *"Sending someone away to study puts pressure on the manpower crunch of nurses in hospital."* This type of information, which was gleaned from the interview, may not be available in the public sphere.

The group also argued that government policies can shape societal perceptions and consequently affect the demand for midwives. They contend that the practice of assigning doctors to non-subsidized patients and midwives to low-income subsidized patients contributes to the perception that midwives are inferior to doctors. Finding evidence of societal perceptions can be difficult; the group bolstered their claim of the perceived inferiority of midwives by quoting their interviewee who spoke from personal experience: *"People see doctors as superior to midwives."*

At the end of the group presentations, students provide feedback on one another's presentations. I encourage them to articulate which aspect of the presentation was more effective and why, and which aspect was less effective and why. The feedback session is an avenue for students to practice expressing their opinions in a constructive manner. Furthermore, students realize that they have something of value to offer their classmates, and hence may be more likely to speak up in the future.

2.4. Discussing and reflecting on their learning experience

After all the groups have presented, we identify and discuss the common themes in their presentations. Students are nudged to practice *active experimentation* by linking their analysis to another group's presentation. A common collective realization is that for many trades, the threat of obsolescence stems primarily from a decline in demand for the good or service. Derived demand, which had been an abstract term, became crystalized as students recognized how demand for labor is *derived* from demand for goods and services. Students could see Marshall's rules of derived demand in action.[10] A student wrote: *"In class, we were taught that labor is a derived demand, and I got to see this playing out in real life through this project."*

Following the class discussion, students write responses to three prompts: (i) "What new knowledge or insight specific to economics have you gained from your project?"; (ii) "What have you learned or realized from your project that goes beyond economics?"; and (iii) "What is one thing that you have learned from your classmates' presentations?" While the open-ended nature of these prompts elicited thoughtful reflections, students were not obliged to think about every aspect of the project. In future, I will revise the prompts to focus on the components of the project: (i) "Reflect on your experience conducting the narrative interview."; (ii) "Reflect on your experience synthesizing your findings. What new knowledge or insight specific to economics did you gain from your project?"; (iii) "Reflect on your experience structuring and delivering your presentation."; (iv) "Reflect on your classmates' presentations. What new knowledge or insight specific to economics did you gain from your classmates' presentations?"; (v) "Reflect on your classmates' presentations. What are the key ingredients of an effective presentation?"; and (vi) "Reflect on your experience working with your groupmate(s)."

The common themes that surfaced in students' reflections are summarized in Appendix B. In Spring 2019, students spent ten minutes writing their reflections in class. In Spring 2022, students were given three days to submit their reflections. Allowing students more time to submit their reflections yielded longer, more detailed, and more nuanced output. For example, while students in Spring 2019 were more inclined to express that economics can explain real-world phenomena, students in Spring 2022 were more likely to articulate *how* economics can explain real-world phenomena, for example, by detailing how technology creates alternatives to or substitutes for secondhand books or vernacular live entertainment. I believe three days is about the right amount of time for a low-stakes reflection. It is long enough for students to process their thoughts, and short enough that the reflection is done while the experience is relatively fresh in their mind.

3. Student reception and learning outcomes

Students responded very positively to this project. Since most of their economics courses at the lower levels revolve around problem sets and exams, this project was quite different from anything they had done before. One student remarked: "*The project work was insightful, and more economics modules should have this type of project.*"

Students recognized the benefits of a project-based assignment. Some appreciated having the autonomy to direct their own learning. A student noted: "*When I applied economic concepts to real-world scenarios in this project, it was different from answering a test question — I felt like I had to identify and set my own question.*" The nature of this assignment more closely resembles the workplace,

[8] Source: Singapore Ministry of Health.
[9] Source: Nurses and Midwives Act 1999.
[10] Marshall's rules of derived demand state that labor demand is more elastic the greater the elasticity of substitution, the greater the supply elasticity of other factors of production, the greater labor's share in total costs, and the greater the elasticity of demand for the output.

where identifying the problem and discerning what is important are crucial analytical skills.

3.1. Learning outcomes related to economics

I highlight some of the key themes in students' reflections, which evidence *abstract conceptualization*. Students recognized economics at play in the real world. A student commented: *"Economics is more applicable in real life than I thought. I didn't expect samurai swords or tombstone designers."* Another student wrote: *"It was very cool to see how economics exists in people's lives, even when they don't explicitly know it. Regarding pasar malam (night markets), rising rent, long hours in a hot environment, and increased regulation are essentially things that we modeled in class."*

Some students expounded on how social, political, and cultural factors interact with economic factors to shape labor supply and labor demand, and to subsequently affect the labor market equilibrium. A student reflected on her study of Peranakan *kasut manek* (beaded slippers) shoemakers: *"I learned about the decisive impact that societal change (specifically increased women's labor force participation and changing fashion trends) had on the demand for beaded slippers and more importantly, on the labor supply. this project was an interesting case study on the relationship between culture and economics."* Another student argued: *"Government policies influence what is valued and receives high returns in society."*

Students found themselves interrogating the models they had accepted at face value. A student noted: *"Textbook models are almost never immediately applicable to real-world scenarios as we found out when doing the project. Careful thinking and reasoning had to be done to unearth the economic theory behind it and even then, it was not something very neat that can immediately be converted into utility functions and production functions."*

In the neoclassical model of labor-leisure choice, utility depends only on the consumption of goods and leisure. Labor, in and of itself, does not bring utility; we engage in labor for the sole purpose of affording consumption goods. However, the interviews revealed that many of the practitioners derived intrinsic satisfaction from their work. One of the interviewees, the rattan weaver, declared: *"If I could turn back time, I would do it all over again."*

Several interviewees cited social relationships and interactions as a reason to continue working despite the low earnings: *"The secondhand bookstore owner wanted to preserve a sense of community with his old customers, and similarly, newspaper vendors continue their trade partly due to the interactions with their customers with whom they have developed strong relationships."* A student contextualized his understanding of the reservation wage accordingly: *"We learned that one's reservation wage is determined by non-labor income and the shape of the indifference curve. Through this project, I learned how non-monetary factors such as human ties or relationships could affect one's preferences and thereby lower one's reservation wage."*

Gratifyingly, some students engaged in *active experimentation* by extrapolating what they had learned in their project to other contexts. For example, one student formulated a hypothesis: night market vendors stay at their job even though their profits are low because they are "emotionally attached" to their jobs. He then considered the converse — emotional distance — and realized that is probably the reason "burnt-out friends" quit their well-paying jobs. He wrote: *"As economists, we're primed to think that labor market decisions on whether to work, and at what kind of jobs, are made based on cost-benefit analysis. In reality, they are so much more about emotional attachment to or emotional distance from the job. We saw pasar malam (night market) vendors who love their job and keep at it despite seeing their profit margins thin out, and we see burnt-out friends who leave well-paying jobs because the environment is harsh and toxic."*

Lastly, students saw the economic agents modeled in class as individuals whose livelihoods are affected by labor market policies and macroeconomic trends. As a student put it: *"I gained a greater consciousness of how there are real people behind the numbers and graphs and trends that we're studying. It's very easy to forget that the things we see in lecture notes are actually reflections of the lives of people."* Through conversations with practitioners of trades in decline, many students recognized the humanity in economics. A student mused: *"Labor economics isn't just about wages, rent, policies, etc. It's also about social dignity."*

3.2. Learning outcomes beyond economics

Alongside analytical skills, social skills are paramount in the workplace (Deming, 2017). Through conversations with students who had recently graduated, I learned that in the first two months in their jobs, many of them were tasked with talking to clients on the ground. This was something that most of them had never been exposed to in their entire four years in college. Hence, I decided to create opportunities for students to practice talking to strangers, especially those from backgrounds that may be dissimilar to theirs. This project nudges students to develop social skills on a level that is well beyond the typical group assignment in which students usually collaborate and communicate almost exclusively with their peers.

Students discovered the value of talking to people and learning from their experience. Effective policymaking requires an understanding of what people are experiencing, not what policymakers *think* they are experiencing. A student opined: *"If we [as economists] truly want to help and be relevant to people, we must make a point of talking to them more, and always have our ear to the ground. Governments and technocrats cannot be so arrogant or blind in formulating, implementing, and enforcing their policies. The costs of compliance cannot be casually dismissed."*

Relatedly, students realized how much can be learned through observation. A student remarked: *"Sometimes in life, we just need to pause, be curious, and observe the people and things around us."* Another student expounded: *"How relaxed the interviewee's posture was, his constant smile as he shared his story, how customized his equipment was (showcasing pride!), how he had residents sitting with him — these are all subtle details that showed us what we could learn about this job."*

By conducting narrative interviews, students developed the critical thinking and communication skills that are essential in eliciting information. A student wrote: *"I learned how to ask the right questions during an interview based on what data or information we are* *supposed to gather, and also how to sieve out the relevant and important information."* Another student reflected on the interpersonal skills required to conduct a narrative interview: *"We really need to be sincere and relatable in order to have an honest conversation and get the best out of an interview."*

Besides interviewing practitioners of trades in decline, students also learned how to present complex ideas in an effective and engaging manner. Students found the TED-style talk novel as they had been taught to deliver scripted and rigid presentations. A student commented: *"I've learned that formal presentations don't have to be boring!"* By watching their classmates present, students identified what captures their attention: *"Some students used more engaging avenues, such as by revolving their presentation around a story or by directly asking questions to the audience. Presentations are about appealing to the audience and striking a chord with them. More than just delivering the content, what matters is how the content is delivered."* A student concluded: *"For an engaging and memorable presentation, it is important to be able to tell a good story, with an overarching key takeaway."*

In addition to honing communication skills, students practiced collaborating. Within a group, students must agree on a topic; they must allocate tasks; and they must cooperate on developing the thesis, narrative, and structure of their presentation. I observed many groups building rapport over the course of the semester. A student noted: *"Group work can be quite enjoyable if you are working with the right people and working on the right project."*

Finally, students had opportunities to engage with the community. A student wrote: *"The project reiterated to me how much fun it is to build relationships and learn about people's passions!"* Students interacted with individuals in artisanal or blue-collar jobs, who are likely outside their social circle. Witnessing their lived realities, a student reflected: *"Through the interview, I realized how some people live very different lives from me and thus face problems that I never knew existed."*

4. Potential challenges

The potential challenges of this project-based assignment include: (i) ensuring that students do not procrastinate; (ii) keeping students focused on the key questions and helping students understand economic models in a real-world setting; and (iii) monitoring group dynamics and preventing free riding.

First, as with all multi-layered projects, procrastination is something to guard against. Scaffolding will go a long way to keeping students on track. For this project, students are required to submit the names of their group members and their topic at least five weeks before the presentation. I expect students to have completed their primary and secondary research before meeting with me, and the meeting happens at least a week before the presentation. Students submit their slides the day before the presentation.

Second, students can find the scope of the project to be somewhat overwhelming. The instructor should provide some form of guidance to ensure that students do not fall down a rabbit hole and lose track of the objective of the project. This guidance can be in the form of face-to-face office hours or even a check-in *via* email. Asking students to articulate their thesis in one sentence is an effective way of keeping them focused.

In addition, students may struggle to apply the models that they have learned in class to their real-world observations. They may not always approach the instructor for help. Meeting with students before their presentation provides an avenue to correct misconceptions and clarify doubts.

Third, some students may face issues while trying to work together in a group. Personally, I prefer having students choose their own group members as they are more likely to already be friends, and hence less likely to get into conflicts. I tell students that if they have a conflict with a group member, they should try to resolve it themselves before approaching me. And if they do approach me, they have to explain the steps that they have taken to try to resolve the conflict.

Any group project is vulnerable to free riding. As the likelihood of free riding increases with the size of the group, I limit the group size to two or three students. Furthermore, every member of a group is required to be present when they conduct the narrative interview and when they meet with me to discuss their project. Instructors who are concerned about free riding could have students evaluate the contributions of each group member.

The potential challenges are minor. The greater the instructor involvement, the greater the likelihood of high-quality presentations. In a small class, meeting with each group is feasible. As the class size increases, however, we may wish to explore other ways of providing intermediate feedback. For example, the project could be scaffolded to include a preliminary brief presentation where each group discusses how they apply an economic theory or model to explain their observations of the trade they are investigating. The instructor and peers provide constructive feedback. Misconceptions, if any, are identified before students embark on the final presentation.

5. Conclusion

In this project-based assignment, students investigate the reasons for the evolution and decline of an occupation. Students develop Hansen's (2001) proficiencies by applying one or more of the three neoclassical models — the neoclassical model of labor-leisure choice, the neoclassical model of labor demand, and the neoclassical model of the labor market — to a real-world context. The ability to transfer learning to novel situations is not easy (Barnett and Ceci, 2002). However, it is an undeniably important skill in this rapidly changing world, and the more opportunities we provide our students to practice transfer of learning, the more equipped they will be to face new situations.

In addition, students practice the four C's of 21st-century skills: critical thinking, creativity, and especially communication and collaboration. The broad nature of the project gives students leeway to chart their own learning, engage in analysis and synthesis, and exercise creativity in designing their presentation. Of particular importance is the opportunity to hone their social skills through collaborating with their groupmates, conducting narrative interviews with strangers, and delivering a TED-style talk to their classmates.

Importantly, students discover the power of narrative in two ways. First, they glean information from the practitioner's narratives. As a student reflected: *"Talking to people on the ground is incredibly useful to gain a better insight into the specific trade as opposed to third-person accounts online. It is much easier to see the big picture and really understand the perspective from someone who has actually experienced it."* I hypothesize that there are two elements that make narrative interviews so potent — the stories themselves and the experience of hearing the stories. Willingham (2009) explains that "the human mind seems exquisitely tuned to understand and remember stories — so much so that psychologists sometimes refer to stories as 'psychologically privileged,' meaning that they are treated differently in memory than other types of material." In addition, gaining information firsthand from someone is such a visceral experience, as the sights, sounds, and smells at the moment of delivery are inextricably intertwined with the message that is being rendered.

Second, students learned that a narrative is a particularly effective vehicle for communicating with an audience. A student reflected: *"The presentations that stick with us best are those that are constructed with a narrative, telling a compelling story that connects not just with the mind, but with the heart. Those are the ones we can relate to and connect with on a deeper level."*

Labor economics lends itself naturally to narrative interviews. Government data sources such as the U.S. Bureau of Labor Statistics can be used to identify the fastest growing occupations or the fastest declining occupations. Students could also explore how the task content of certain occupations has evolved or how perceptions of certain occupations have changed.

Narrative interviews can also be applied in other courses. One question is whom to interview. The individual should have an experience or a perspective that is different from most students. People from other countries, people of different ages, and people in different types of occupations may be good candidates.

In an industrial organizations course, for example, students may interview a driver of a ride-hailing company, such as Uber or Lyft. These drivers are particularly interesting because they are both sellers of labor as well as buyers of a platform. Talking to these drivers will shed light on how drivers perceive the pricing and product differentiation strategies and the compensation structures of competing platforms.

In a public economics course, students may assess various fiscal policies by interviewing different stakeholders. With the COVID-19 crisis, many governments have rolled out policies — such as the 2021 American Rescue Plan Act — to provide both fiscal stimulus and economic relief. For such large-scale and well-publicized policies, just about any individual will have a story to tell about what the policies mean to them.

This project is related to economic journalism, where: (i) economics is employed to make sense of real-world phenomena and trends; and (ii) explanations are constructed and data are interpreted for a general audience. Grunin and Lindauer (1986) reported that a course in economic journalism "provided a vehicle for enhancing student understanding" of economic theories and concepts. Furthermore, students had "a sense of *doing* economics." While students in my course communicate their findings *via* TED-style talks, the output can take on forms as varied as news stories, op-eds, videos, podcasts, and visual narratives.

Project-based assignments incorporating experiential learning and narrative interviews add a different dimension to a student's learning experience. The lessons that are gleaned cannot be measured by test scores alone; however, these lessons are no less valuable. And while the answers are not quite as objective as mathematical solutions, the process of discovering these answers is more representative of what students will be doing in the workplace over the next forty to fifty years of their lives.

CRediT authorship contribution statement

EeCheng Ong: Conceptualization, Methodology, Formal analysis, Investigation, Writing, Visualization.

Data Availability

No data was used for the research described in the article.

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Appendix A. Instructions to students

The mystery of the vanishing trade

Your mission: Investigate why a particular trade may be vanishing. This project-based assignment comprises: (i) researching and analyzing an occupation in decline; (ii) synthesizing your findings; (iii) presenting a narrative to the class; and (iv) reflecting on your learning experience, communally and individually. The multifaceted nature of this project offers you opportunities to hone the four C's of 21st-century skills: critical thinking, creativity, communication, and collaboration.

First, the administrative details

Submission of Group and Topic

Groups should be formed only within tutorials. For groups with two students, the presentation should be 8–10 minutes. For groups with three students, the presentation should be 12–15 minutes. Points will be deducted if you exceed the allotted time.

Submit the names of your group members by 11:59 p.m. on *Date A (Week 6)*. List your names in alphabetical order as they appear on the roster. *Link to Google Sheet.*

Submit your topic — the occupation you are investigating — by 11:59 p.m. on *Date B (Week 7)*. Within each tutorial, there should be no duplicates, *i.e.*, groups in the same tutorial should investigate different occupations. *Link to Google Sheet.*

Consultation and Feedback

I will meet with each group to provide feedback. We should meet at least a week before your presentation. To schedule your meeting with me, please email me (and cc your groupmates) at least two weeks before your presentation, and state at least three days/times in order of preference. These deadlines are not negotiable. All group members should be present at the meeting.

Presentations

You will present during tutorial on *Date C (Week 12)* and *Date D (Week 13)*. The order of the groups will be determined by lottery. You are welcome to swap slots if you wish. If you do so, please email me and cc the group that you swapped with.

Please upload your presentation slides on *Learning Management System* by 11:59 p.m. the day before your presentation. Name your slides as such: tutorial group, followed by the last name of each member in alphabetical order, *e.g.*, “W01 Angrist Card Imbens.”

Now, for the fun part

Here are some prompting questions to guide you as you investigate your chosen trade: How has an individual business evolved? How has the industry evolved? Is the occupation in decline because of a shift in labor supply or a shift in labor demand? Which factors are most pertinent in explaining the decline: international trade, offshoring, automation, computerization, higher education levels, government policies, changing tastes and preferences, or something else? Is the occupation vanishing or is it metamorphosing?

Researching and Analyzing an Occupation in Decline

Identify an occupation that is in decline. You may reflect on what has disappeared from your neighborhood, talk to your parents and grandparents, and scour news articles. You may also draw on inspirations such as a stamp series titled *Vanishing Trades*, published by the Singapore Post Limited: https://www.straitstimes.com/singapore/new-singapore-stamps-featuring-vanishing-trades-to-be-launched.

Conduct secondary research by gathering information from text, video, and audio sources. Based on your secondary research, construct a preliminary framework of your analysis, and formulate questions to pose to the practitioner(s) of the trade whom you will interview. While you need to prepare for the interview, the questions are merely a guide. To be truly effective in eliciting information, you have to listen and respond to what the interviewee is saying; you cannot just mechanically read a list of questions and record the answers.

Primary research will be in the form of a narrative interview with a practitioner of the trade you are investigating.[11] Identify at least one practitioner and arrange for an interview if possible. All group members should be present at the interview. You may also try to strike up conversations with a practitioner as they are plying their trade. Be respectful and sensitive when approaching potential interviewees. Choose a suitable time when the practitioners are neither too busy nor too tired. Some practitioners may be chatty while others may be terse, in which case you may wish to seek out alternative interviewees.

If you wish to record the conversation, first seek permission from the interviewee. If recording the conversation is either not permissible or not ideal, then take brief notes (with permission) during the interview and jot down your findings and impressions immediately after the interview.

To document your experience, you may wish to take photographs or videos of the practitioner at work. Of course, you should ask for permission before doing so. The photographs may be used as visual aids in your presentation.

During the interview, engage your senses. The interview is not solely about the practitioner’s spoken words. Pay attention to what is unspoken, such as facial expressions, gestures, and posture. In addition, heed the stories telegraphed by the inanimate objects in the workspace or the neighborhood. As you will have conducted secondary research prior to embarking on the interview, you may pick up on things that you would not otherwise pay attention to.

Synthesizing Your Findings

Synthesize your findings from your primary and secondary research with the theories, models, and concepts you have learned in class. Apply one or more of the three neoclassical models — the neoclassical model of labor-leisure choice, the neoclassical model of labor demand, and the neoclassical model of the labor market — to explain how the trade has evolved over the decades and why it is in decline. Focus on material from the first half of the semester: labor supply, labor demand, and labor market equilibrium. You are free to

[11] Narrative inquiry is the process of gathering information to produce a narrative. “[P]eople by nature lead storied lives and tell stories of those lives, whereas narrative researchers describe such lives, collect and tell stories of them, and write narratives of experience” (Connelly and Clandinin, 1990).

draw on material from the second half of the semester, but you are not expected to do so. I will meet with each group to guide you in your synthesis.

Presenting a Narrative to the Class

Structure your presentation as a TED-style talk. Watch a few of the most popular TED Talks to identify what makes an effective presentation: https://www.ted.com/playlists/171/the_most_popular_talks_of_all.

Also, see: https://www.ted.com/playlists/574/how_to_make_a_great_presentation; https://hbr.org/2013/06/how-to-give-a-killer-presentation; http://www.garrreynolds.com/preso-tips/.

Presentations are assessed on the following: (i) content, *i.e.*, strength and sophistication of analysis and quality of exposition; (ii) evidence and examples cited; (iii) organization and design; (iv) delivery; (v) originality and creativity; and (vi) degree of student engagement and class participation facilitated by the group.

Some pointers: (i) Keep in mind your audience. What do they know and what do they not know? (ii) Try not to read from a script or recite from memory. Talk to your audience. (iii) Could you have produced this presentation at the beginning of the semester? If the answer is yes, you have not incorporated theories of labor economics.

Contribution to a lively discussion during tutorial (either as a presenter or as a member of the audience) will also count towards your participation grade.

Discussing and Reflecting on Your Learning Experience

We will discuss the broad themes arising from your presentations. You will also submit short written reflections, which will be collated and shared with the class.

Appendix B: Summary of common themes in student reflections

	Number of Students	
Theme	**Spring 2019**	**Spring 2022**
Related to economics		
Economics can explain real-world phenomena	6	3
Contextualize economic models to incorporate reality	11	4
Economic factors interact with social, political, and cultural factors	3	7
Workers derive utility from non-pecuniary factors, *e.g.*, intrinsic satisfaction, social interaction, embedded culture	2	13
Perceptions of an occupation, *e.g.*, social stigma	3	4
Labor is a derived demand	6	6
Technology creates alternatives to or substitutes for a good or service	5	8
Changing consumer tastes and preferences affect labor demand	4	6
Government legislation shapes labor supply and labor demand	10	8
Recognize economic agents as individuals who are affected by policies and trends	4	4
Beyond economics		
Conducting a narrative interview, *e.g.*, how to ask the right questions, the importance of interpersonal skills	3	6
The value of talking to people and learning from their experience	4	7
Engaging the audience, *e.g.*, using humor, quotes, visuals	14	13
Effective presentation delivery, *e.g.*, being unscripted and conversational, interacting with the audience	4	12
The value of narratives/stories/anecdotes	10	10

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