

NARRATIVE INQUIRY OF OPT WORKERS IN
MANUFACTURING ENGINEERING FIELDS

A dissertation

Presented to

The College of Graduate and Professional Studies

College of Technology

Indiana State University

Terre Haute, Indiana

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

by

MariEtta Joleen Watson

May, 2022

© MariEtta Joleen Watson 2022

Keywords: HRD, OPT, qualitative, STEM, technology management

VITA – MariEtta Joleen Watson

Education:

Ph.D. (2022). Indiana State University - Technology Management - HRD and Industrial Training

M.S. (2013). Western Kentucky University - Technology Management

Graduate Certificate (2013). Western Kentucky University – Organizational Communication

Graduate Certificate (2013). Western Kentucky University – Leadership

B.S. (2003). Bethel University, McKenzie, TN – Biology/Secondary Education

Professional Memberships:

The Association of Technology, Management, and Applied Engineering (ATMAE)

American Society for Quality (ASQ)

Certification:

Certified Technology Manager, ATMAE

Employment:

2014 – Present Instructor, SOT Graduate Programs, University of Central Missouri

2013 – 2014 Ph.D. Fellow, SOT Graduate Programs, University of Central Missouri

2012 – 2013 G.A., Archit. and Mfg Sciences, Western Kentucky University

COMMITTEE MEMBERS

Committee Chair: Cindy L. Crowder, Ph.D.

Professor, Department of Human Resource Development and Performance Technologies
Indiana State University

Committee Member: Mehran Shahhosseini, Ph.D.

Professor, Department of Applied Engineering and Technology Management
Indiana State University

Committee Member: Ronnie Rollins, Ed.D.

Chair, School of Technology
University of Central Missouri

ABSTRACT

Optional Practical Training (OPT) is a highly valued and highly underutilized program designed to offer international students an opportunity to work in the U.S. and train in their field of study. This qualitative study collected and analyzed the narratives of three alumni of a Midwest university who completed OPT in the manufacturing engineering field. Four themes were identified in the narratives. These themes were inextricable to the premise that OPT is a deeply appreciated opportunity for F-1 students. The first theme is viewing the OPT experience as a system which includes the university, USCIS, and the employer and moreover a need to improve this system. Secondly, subjects demonstrated an acute reluctance to disclose information, an important point to keep in mind when conducting future research. The third theme is the desirability of sustained professional development. This theme was expressed through descriptions of actions and as advice for future OPT workers. Finally, subjects identified the uncertainty of new experiences as a bigger challenge than the reality of the experience. Efforts to remove barriers for these workers should include the time leading up to the action and address uncertainty.

ACKNOWLEDGMENTS

I would like to give my sincere appreciation to everyone who tolerated the version of me that manifested during this Doctoral process, especially my paragon of a husband. I would like to thank my committee members for their support throughout this dissertation. I am very fortunate to have worked with such a collection of compassionate scholars. Dr. Sue, you have been a dear friend from my first day as a doctoral student. Thank you for being there for me. Dr. Mark Doggett, you always believed in me. There are no words for how much that means to me. My auditor deserves special recognition, as well. They were a joy to work with. Finally, this project would not have been possible without the three subjects who shared their stories with us. I admire their bravery and wish them all the best in their future careers.

TABLE OF CONTENTS

ABSTRACT	iii
ACKNOWLEDGMENTS.....	iv
LIST OF TABLES	vii
INTRODUCTION.....	1
Overview	1
Statement of Objectives	3
Statement of Assumptions.....	4
Statement of Limitations	5
Statement of Methodology	6
Statement of Method.....	7
Statement of Terminology.....	7
LITERATURE REVIEW	10
Manufacturing Engineering.....	11
Optional Practical Training (OPT) Policy	13
OPT Professional Development Requirement: An HRD Consideration.....	20
The F-1 Student Experience	23
The OPT Student Experience	25
The Foreign Born, Nonimmigrant Skilled Worker Experience.....	31

Summary	34
METHODOLOGY	35
Methodology Foundation	35
Method Foundation	36
Method	38
Researcher as Instrument.....	41
Data Analysis.....	51
RESULTS I.....	53
Alias’s Story: First Person Narration.....	55
Anonym’s Story: First Person Narration.....	66
Appellation’s Story: First Person Narration	72
Summary	92
RESULTS II.....	94
Analysis of Research Sub-Questions.....	94
Discussion of Prominent Themes.....	101
Summary	107
DISCUSSION AND CONCLUSION	109
Relevance of Findings to Literature	109
Implications for Practice.....	111
Suggestions for Future Research.....	112
Conclusion.....	113
REFERENCES.....	117

LIST OF TABLES

Table 1 Relevance of research questions to subject narrative: Percentage of total codes.....96

CHAPTER 1

INTRODUCTION

Overview

International students attending United States (U.S.) higher education institutions on an F-1 visa have the opportunity, under complicated and specific circumstances, to work full time in the U.S. under Optional Practical Training (OPT) employment authorization. According to the United States Citizenship and Immigration Services (USCIS), OPT is temporary employment that must be directly related to the student's major area of study (USCIS, 2021b). Completion of an OPT period possessed a significant positive predictive value for international student migration to the U.S.; the OPT option is highly desirable to international students studying in the U.S. (McGill, 2013). Eligible students can receive up to 12 months of OPT employment authorization and if the student's degree is in certain science, technology, engineering, or math (STEM) fields, the student may qualify for a 24-month extension beyond the initial 12-month period (USCIS, 2021b). As a result of this policy, graduates with engineering backgrounds may remain in the U.S. and work in manufacturing engineering fields for over three years before returning home or changing their F-1 visa status.

In 2019, the United States Citizenship and Immigration Services (USCIS) approved 225,213 applications for Optional Practical Training (OPT) for the 2019 fiscal year (USCIS, 2019). United States Immigration and Customs Enforcement (ICE) data shows 212,305 students with approved OPT status reported working for an employer (ICE, 2020). As 2019 marked a historic peak in OPT applications, it is apparent that students in OPT comprise a relatively small percentage of overall international students, approximately 6% in 2019 (ICE, 2020).

Despite their relatively small numbers, these OPT workers are an important component to their organization's strategic Human Resource Development (HRD) plan. OPT, by name and definition, is training for the student. The USCIS stringently regulates employers utilizing the STEM extension, including training personnel requirements, filings of personalized training plans, and site visits (USCIS, 2021a). Students and employers neglecting the professional development component of an OPT position face termination from the program or worse, as documents are filed with the government under the penalty of perjury. HRD professionals should also note the considerable potential contributions of OPT students to the U.S. workforce. "About 9.5% of the current high-skill labor force is comprised of those entering the US on student visas and then transitioning to temporary or permanent work visas" (Bound, et al., 2015, p.64). The impact of foreign born workers to U.S. competitiveness, productivity, growth, and STEM human capital connects with the HRD premise of people as a competitive advantage (No & Walsh, 2010; Lowell & Martin, 2012; Peri et al., 2015; Wright et al., 2017). From a

Poststructuralist viewpoint, OPT workers comprise a site of contestation, as they are a minority group among the U.S. workforce. Understanding their narratives helps to challenge taken-for-granted power and power relations (Zeegers & Barron, 2015). This study begins to provide a voice in Human Resource Development research for this specific demographic.

Despite the potential impact of this OPT period on the students and their employers, this demographic is markedly underrepresented in research literature. Using Narrative Inquiry, this dissertation relates the stories of the experiences of students with manufacturing engineering backgrounds graduating from U.S. universities and gaining OPT employment in related fields. The resulting narrative provides perspectives for current and future OPT workers in manufacturing engineering, for higher education institutions servicing these workers, and for employers opting to utilize these workers.

Statement of Objectives

Due to the dearth of scholarly research into the experiences of OPT workers, a qualitative approach was employed to better understand the narrative of OPT workers in manufacturing engineering fields and delineate variables for future studies. Using Narrative Inquiry, this study explored the OPT employment experience of OPT workers in manufacturing engineering fields.

The central research topic was:

R1: How do subjects perceive the OPT experience?

Sub-topics that supplemented the central research question were as follows:

R1a: How do subjects describe the experience of the STEM OPT Formal Training Plan?

R1b: How do subjects describe the experience of learning the job duties and roles?

R1c: How do subjects describe the experience of work socialization and acculturation?

R1d: How do subjects describe the experience of complying with USCIS regulations?

Statement of Assumptions

This study involved certain assumptions.

1. The first, inherent of qualitative interviewing, was that the perspectives of the participants were meaningful, knowable, and able to be made explicit (Patton, 1990, p. 341).
2. The researcher assumed the participants gave true narratives of their experiences. The researcher assumed the participants gave complete narratives of their experiences except for revealing information that would identify the individual.
3. Qualitative research allows researchers to have an emic relationship within the research design (Zeegers & Barron, 2015). The researcher assumed relationships with the research participants was a net positive, resulting in increased disclosure of experiences.

4. The researcher had expectations for the data due to having first-hand historical knowledge of the subject's experiences. This is discussed further in Chapter 3.
5. The participants will have completed their OPT at various lengths of time before the interview, ranging from 5 years to less than one month. This was by design to augment the anonymity of the participants. The assumption was the time disparity did not affect the ability to discern common themes from the narratives.
6. Research has an inherent assumption that the researcher has the self-awareness to recognize their own bias (Thomas, 2012). This was a particularly impactful assumption as reflexivity is a basic characteristic of qualitative research (Creswell, 2014).

Statement of Limitations

This study involves certain limitations.

1. Audio recording is an accepted method for collecting data in qualitative interviews. However, the participants' knowledge of the recording process may affect the narrative (Thompson, 1996).
2. The researcher and the participants have significant differences in culture, including but not limited to native language, country of origin, and ethnicity. These differences complicate mutual understanding of the narratives. Methods for increasing reliability and validity, including the use of external auditors culturally similar to the participant, bring the accuracy of the narrative within

- acceptable levels for the purpose of deriving research results but will not completely alleviate issues in mutual understanding of the narratives.
3. There may be a disconnect between an individual's lived experience and their telling the story of that experience (Thomas, 2012, p. 216). This research provides a narrative of participant perceptions of events, i.e., experiences, filtered and told by the participant. The research cannot claim to provide Positivistic, objective, accurate-to-reality accounts of events.
 4. This study was exploratory in nature. Limited sample size, non-random sampling, and qualitative methodology all limit the ability to generalize findings to the population.

Statement of Methodology

There is a lack of information for OPT workers as well as a lack of information on any nonimmigrant workers in manufacturing engineering fields. Rather than extrapolate from other populations possible variables that may apply to manufacturing engineering OPT workers, this research used qualitative methods to allow this population to reveal social and cultural factors relevant to their own stories. Qualitative methodology is appropriate for addressing complex, social aspects of a largely unknown situation (Creswell, 2014).

A Constructivist methodological approach provides the best narrative of the factors that this population perceives as important. The perceptions, symbols, and

constructs used to describe the events are valuable, as these internal constructs are the drivers for intrinsic motivation and perceptions of self-worth (Creswell, 2014).

Statement of Method

Symbolic Interactionism and, more specifically, Narrative Inquiry provided a design for analyzing the stories provided by the participants. Participants' narratives were obtained through personal, recorded interviews. Per Symbolic Interactionism research guidelines, which suggest one to three participants, this research interviewed three distinct respondents (Zeegers & Barron, 2015).

In person interviews were conducted privately and audio recorded. *NVivo 12* software was used as an aid for analysis. Analysis of the words the participants chose (symbols) to describe their experiences help establish a summative narrative that explains the experiences of students with manufacturing engineering backgrounds graduating from U.S. universities and gaining OPT employment in related fields (Zeegers & Barron, 2015).

Statement of Terminology

For the purpose of this study, the following definitions apply.

Constructivist: Constructivism is a philosophical worldview guiding an approach to research that seeks to understand the mentally constructed rules people use to make sense of their world rather than seeking out objective truths (Sekaran & Bougie, 2016).

Experiences: In relation to Narrative Inquiry, experiences are defined as the perceptions of event interactions (Zeegers & Barron, 2015).

Foreign born: Anyone who is not a U.S. citizen at birth (United States Census Bureau, 2021).

Manufacturing Engineering: Applying “scientific and mathematical principles to the design, development, and implementation of manufacturing systems. [Manufacturing engineering includes] materials science and engineering, manufacturing processes, process engineering, assembly and product engineering, manufacturing systems design, and manufacturing competitiveness” (NCES, 2020, p.1)

Narrative Inquiry: A design of inquiry in which individuals provide stories of their lives and the researcher restories the information in chronological order. The researcher codes themes from the narrative (Creswell, 2014).

Nonimmigrant: “Foreign nationals admitted temporarily to the United States. Examples of nonimmigrant classes of admission include foreign government officials, temporary visitors for business and pleasure, aliens in transit, treaty traders and investors, academic and vocational students, temporary workers, exchange visitors, athletes and entertainers, victims of certain crimes, and certain family members of United States citizens and lawful permanent residents (LPRs).” (Homeland Security, 2017).

Optional Practical Training (OPT): Temporary employment that is directly related to an F-1 student’s major area of study.

Symbolic Interactionism: A theoretical framework where “the researcher examines human behavior on the basis of the meaning individuals give to their environment”

(Zeegers & Barron, 2015, p. 5). Individuals construct their own social realities, and the symbols of these realities are expressed in words (Zeegers & Barron, 2015).

STEM: An acronym for science, technology, engineering, and math. Regarding the OPT STEM extension, a worker must obtain a “degree from a school that is accredited by a United States Department of Education-recognized accrediting agency and is certified by the Student and Exchange Visitor Program (SEVP)” and work in a field directly related to their degree in order to qualify for the STEM extension (USCIS, 2021a).

CHAPTER 2

LITERATURE REVIEW

Existing research predominantly is only tangential to OPT workers in manufacturing engineering fields and does not directly address the population or topic of this dissertation. A large portion of related literature deals with OPT as a process and explores legal and political issues of the OPT process rather than exploring the actual OPT workers. These topics of study are valuable, but do not address the objectives presented in this dissertation. Nitzschke's (2017) article typified the focus on the legality of the OPT process while Sa and Sabzalieva (2018) and Demirci (2019) represented political research.

Research pieces focusing specifically on the phenomena and perceptions of the 2008 OPT STEM extension option are plentiful (Amuedo-Dorantes, et al., 2019; Monohan, 2018; and Thibodeau, 2014), but similarly do not address the objectives presented in this dissertation.

A well-researched demographic is foreign born, nonimmigrant workers, especially those in the Information Technology (IT) and Computer Science (CS) fields (Banerjee, 2010; Varma, 2021; Vijayakumar & Cunningham, 2016). While plausible that

research into this demographic may somewhat generalize to OPT workers in manufacturing engineering fields, many nonimmigrant workers come to work in the U.S. directly through H-1 visa channels and never have the OPT experience. Engineers in other industries may not provide data generalizable to the manufacturing engineer condition.

OPT workers in manufacturing engineering fields are a subcategory of the engineering industry and of international students studying in the U.S. Research into these areas is assumably relevant to the demographic of this dissertation. However, research comparing the strata of OPT workers in manufacturing engineering fields with these larger populations was not identified. The degree of relevance of research exploring the larger populations of engineering industry and/or international students studying in the U.S. to the target population of this study is unknown.

Manufacturing Engineering

According to the National Center for Education Statistics (NCES), manufacturing engineering is the application of “scientific and mathematical principles to the design, development, and implementation of manufacturing systems. [Manufacturing engineering includes] materials science and engineering, manufacturing processes, process engineering, assembly and product engineering, manufacturing systems design, and manufacturing competitiveness” (NCES, 2020, p.1). Data from the United States Bureau of Labor Statistics and compiled by the American Society for Engineering Education (2021) indicated that in 2018 nearly 35% of all employed engineers in the United States

worked in the manufacturing industry. While data aggregated to include manufacturing technicians showed a decline in the job market (American Society for Engineering Education, 2021), data specific only to manufacturing engineers projects a faster than average growth rate at 10% to 15% for 2020 – 2030 (O*NET, 2021). The United States Bureau of Labor Statistics (2021) projected fast as average growth for the same time period for electrical and electronics engineers (7% growth), mechanical engineers (7% growth), and materials engineers (8% growth). Industrial engineers showed a 14% growth outlook; however, this category includes jobs inside and outside the scope of manufacturing engineering. In 2020, the median annual wage for mechanical engineers was \$90,160 (O*NET, 2021).

Manufacturing engineering requires the practitioner to wear many hats. They may be asked to identify and solve problems with operations, designs, materials, or processes. They implement waste reduction and continuous improvement methods according to the company's adopted Quality system as well as designing and implementing testing and validation measures. Manufacturing engineers are expected to be technical experts on new and existing manufacturing methods, performance, product designs, and machines and be capable of creating reports detailing this information. They are often called on for managerial duties, such as to supervise and train workers, document processes and procedures, and analyze and forecast financial aspects of the manufacturing process (O*NET, 2021).

Despite potential job growth and an attractive salary, the industry has had issues getting these positions filled (Firestone, 2012; Huff, et al., 2016). This may be a result of diversity issues, as the industry is particularly dominated by the male gender and the White race (Bell, 2018; Firestone, 2012). Others have cited gaps between education and industry for the personnel issues (Huff, et al., 2016). Engineering in general may have garnered a reputation for fickleness, quick to lay off workers during downturns and choosing to hire new graduates in the booms (Lowell & Martin, 2012). Regardless of the root cause, the deficit in candidates and projected job growth creates an opportunity for OPT workers to fill positions in this industry.

Optional Practical Training (OPT) Policy

The paragraphs to follow will give a synopsis of government policies and regulations governing the OPT program. The information was compiled from USCIS.gov, the United States Citizenship and Immigration Services website, in November 2021 and should be seen as a snapshot of the situation at the time. This information is not intended as a guide; policies and regulations are complicated and change often and swiftly.

The U.S. allows eligible international students and new graduates the opportunity to gain on-the-job-learning that supplements knowledge gained in their academic studies. Optional Practical Training (OPT) is one of these opportunities. To participate in OPT training opportunities, an international student does not need to change their nonimmigrant status.

Students do; however, need to meet several criteria. To engage in OPT employment, students must have completed their first year of academics in F-1 status. F-1 is a nonimmigrant visa category for persons wishing to study full time in the U.S. at an accredited college, university, seminary, conservatory, academic high school, elementary school, or other academic institution or in a language training program. The program or course of study must conclude in a degree, diploma, or certificate and the school must be authorized by the U.S. government to accept international students. Schools use the Student and Exchange Visitor Information System (SEVIS) to petition the Student and Exchange Visitor Program (SEVP) for certification, which allows the school to offer programs of study to nonimmigrant students. SEVIS is the Web-based system that the United States Department of Homeland Security uses to warehouse data on SEVP-certified schools and the F-1 students who come to the U.S. to attend those schools. The student must be enrolled in an academic educational program or a language-training program at a school approved by the Student and Exchange Visitors Program, Immigration & Customs Enforcement. They must be enrolled as a full-time student at the institution, be proficient in English or be enrolled in courses leading to English proficiency, and have sufficient funds available for self-support during the entire proposed course of study. Finally, the student must maintain a residence outside the U.S. which they have no intention of surrendering. All international students who receive financial compensation of any kind must apply for a social security number.

Optional Practical Training (OPT) is a form of on-the-job training, often paid, that directly relates to the student's program of study. The OPT program relevant to this study is known as post-completion OPT, meaning students begin this OPT program after they graduate from their studies. Employers must offer the student a position with at least 20 hours of work per week in order to qualify. Students can apply for 12 months of OPT at each education level. For example, students can apply for 12 months of OPT at the bachelor's level and another 12 months of OPT at the master's level.

To apply for OPT, F-1 students must request approval from their designated school official (DSO) at their academic institution. The institution's DSO will give their approval by endorsing the Form I-20, Certification of Eligibility for Nonimmigrant Student Status and make the appropriate notation in SEVIS. The DSO also reports the student's address, courses of study, enrollment, employment, and compliance with the terms of the student status. Additionally, the DSO transfers the student SEVIS records to other institutions if necessary.

Next, the student must file the Form I-765, Application for Employment Authorization and supporting documents with United States Citizenship and Immigration Services (USCIS). For STEM degrees, students must apply within 30 days after their DSO enters the recommendation for OPT into the student's SEVIS record. Students may apply from up to 90 days before completing their degree to no later than 60 days after completing their degree. During this OPT period students are allowed a maximum of 90

days of allowable unemployment. Exceeding the maximum allowable unemployment days will result in termination from the OPT program.

If the Application for Employment Authorization is approved, USCIS will issue a Form I-766, Employment Authorization Document. USCIS will also send an Employment Authorization Document (EAD) card to the student. Students may not proceed without this authorization and receipt of their EAD card.

If a student transfers to another school or begins studies at another educational level, they will lose their OPT authorization. SEVP will inform USCIS of the termination date, and USCIS will terminate the EAD. The student's F-1 status will not be affected if they comply with all requirements for maintaining student status, including not working on a terminated EAD.

If a student earned a degree in recognized STEM fields, they may apply for a 24-month extension of post-completion OPT employment authorization. The regulations for the STEM extension are far more involved than the regulations for the standard 12-month OPT period.

The first requirement for F-1 students seeking the STEM OPT extension is to receive a STEM degree included on the STEM Designated Degree Program List. The STEM Designated Degree Program list is a complete list of fields of study that the Department of Homeland Security considers to be science, technology, engineering, or mathematics (STEM) fields of study. STEM fields of study are found in the Department of Education's Classification of Instructional Programs taxonomy within a series

containing engineering, biological sciences, mathematics, and physical sciences, or a related field. In general, related fields will include fields involving research, innovation, or development of new technologies using engineering, mathematics, computer science, or natural science. Related fields in this list include fields involving research, innovation, or development of new technologies using engineering, mathematics, computer science, or natural sciences.

In addition to completing a STEM degree, students are also required to have been granted OPT and currently be in a valid period of post-completion OPT, be employed by an employer who is enrolled in and is using E-Verify, and receive the appropriate OPT employment authorization. A student may participate in the STEM OPT extension once per degree level, up to twice over the course of their academic career. Employers of OPT students must attest that the student will not replace a full-time or part-time, temporary or permanent, U.S. worker.

To apply for the OPT extension, students submit Form I-765, the Form I-20, Certificate of Eligibility for Nonimmigrant Student Status, and a copy of their STEM degree. Students must submit the Form I-765, Application for Employment Authorization, up to 90 days before their current OPT employment authorization expires and within 60 days of the date their DSO enters the recommendation for OPT into the SEVIS record. Students are not allowed to apply for the STEM extension while in the 60-day grace period occurring after the 12-month OPT period. OPT STEM students are

allowed an additional 60 days of unemployment beyond the 90 days during the initial period of post-completion OPT.

Before applying to USCIS for a STEM OPT extension, a STEM OPT student must download, complete, sign, and submit the Form I-983 to their DSO. The Department of Homeland Security requires that the STEM OPT student, the university's DSO, and the student's employer work together to complete Form I-983. The STEM OPT student will obtain the Form I-983 online and is responsible for returning the completed and signed form to their DSO. DSOs are responsible for keeping the completed form in the student's record. STEM OPT employers are responsible for completing several sections and must provide a signature on the STEM OPT Evaluation of Student Progress. Once completed, this form documents the relationship between the STEM practical training and the student's degree and learning objectives. The document consists of information about STEM OPT students, the Student and Exchange Visitor Program (SEVP)-certified schools they attend, and the student's employer. Form I-983 follows the student throughout their OPT extension, requiring periodic Evaluation of Student Progress updates.

Students must report to their DSO every six months to confirm that the student's record in SEVIS is accurate. This includes information such as legal name, address, employer information, and employment status. If there is a change in this information, however, STEM OPT students must report the change within 10 days of the change. They are not allowed to wait until the next mandatory six-month update.

Each STEM OPT student must also complete an annual Evaluation of Student Progress, signed by the student and the employer, and then submit the assessment to their DSO for reporting. The two reporting periods consist of an initial assessment 12 months after the STEM OPT start date and a final assessment at the completion of the 24-month period. The DSO must receive the assessment no later than 10 days following the conclusion of each training period. Not submitting a final evaluation would be a violation of the terms of the Form I-983 and may result in termination of the student's nonimmigrant status. The student must submit the 12-month and final evaluations no later than 10 days following the conclusion of the appropriate reporting period or within 10 days of leaving an OPT position early.

Employers of OPT students must also document specific information about the company and the agreed upon practical training schedule and compensation. This includes information such as details about the tasks and assignments the student will carry out during the training opportunity and how those tasks relate to the student's STEM degree, explanation about how the employer will provide oversight and supervision of the STEM OPT student, and information about the measures and assessments the employer will use to confirm that the STEM OPT student is acquiring new knowledge and skills.

The Department of Homeland Security, more specifically, an Immigration and Customs Enforcement (ICE) officer may conduct site visits to ensure the OPT requirements are being met. The goal of the site visit is to confirm that information

reported on the student's Form I-983 is accurate while not placing an unnecessary burden on employers. These visits ensure the student is receiving work-based learning experiences and reduce the potential for abuse of the system. Typically, these visits are preceded by a 48-hour notice, the alternative being surprise visits triggered by complaints or evidence of noncompliance.

The preceding summary, compiled from the USCIS website in November 2021, provided a glimpse into the dizzying array of policies and regulations surrounding OPT. The student, the academic institution, and the employer all have specific roles, documentation requirements, and deadlines that are dictated and enforced by the USCIS and are compulsory for each party to remain eligible for the OPT program.

OPT Professional Development Requirement: An HRD Consideration

The United States Immigration and Customs Enforcement (ICE) (2016) published a guide outlining the OPT STEM extension training requirements. Due to the nature of Human Resource Development (HRD) and the professional development requirements from STEM OPT, the OPT process is tied to the HRD function.

A precise definition of Human Resource Development is elusive. Defined too broadly HRD becomes vague and convoluted; defined too precisely and inevitably important components are missed. The importance of HRD as a strategic organizational advantage warrants a sufficient definition despite the complexity and breadth of the field.

HRD practices focus on employee, organization, and career development within an organization (Chapman, et al., 2018). HRD develops individuals in their current roles,

prepares them for new roles, and unleashes their creative potential (Rothwell, et al., 2009).

Gilley and Maycunich (2000) compiled several definitions of HRD and found three consistent domains of professional practice: organizational learning, performance, and change. Efforts in these three domains result in performance improvement and organizational change. HRD professionals focus on identifying development initiatives that enhance organizational goals and objectives and guide the appropriate trainers in successfully delivering these initiatives (Gilley & Maycunich, 2000).

Nadler (1979) described the function of HRD as change through learning. Change is achieved through training, education, and development. Training imparts knowledge, skills, and attitudes leading to change in job performance (Masadeh, 2012; Nadler, 1979). Generally training is a hands-on experience (Masadeh, 2012). Education focuses on immediate change to an individual's capabilities and is a less specialized approach to enhancing knowledge rather than a limited activity or skill (Masadeh, 2012; Nadler, 1979). Development is a long-term process encompassing a wide range of activities designed to harbor general, long-term improvement in the individual (Masadeh, 2012; Nadler, 1979). Successful changes lead to performance improvements and organizational developments that reduce costs, improve quality, enhance human capital, and increase the overall competitiveness of the organization (Gilley, & Maycunich, 2000).

ICE requires employers of STEM OPT students to answer the following four questions: How are the student's assignments with the employer related to the student's

STEM degree? How will the assignments with the employer contribute to the student making progress toward professional goals and objectives? How will the employer evaluate the student? How will the employer supervise the student? It is the employer's responsibility to implement a formal training program that provides practical experiences that align with the student's academic learning. This Training Plan must document the direct relationship between the STEM OPT opportunity and the student's qualifying STEM degree, as well as the relationship between the STEM OPT opportunity and the student's professional development goals. The employer must have sufficient resources and supervisory personnel available to provide appropriate training in connection with the Training Plan. While employers can use existing training programs or policies to meet the requirements relating to performance evaluation and oversight and supervision, the student's Training Plan must nevertheless be customized for the individual student (United States Immigration and Customs Enforcement (ICE), 2016).

The STEM OPT experience must assist the student in attaining their training goals. The student must assess their acquisition and application of knowledge and skills identified in the Training Plan using the measures identified in the Training Plan. The student is expected to discuss their accomplishments and contributions to the organization and address when and if there are modifications to the Training Plan. It then falls back to the employer to check and verify the student assessment is adequate and accurate (United States Immigration and Customs Enforcement (ICE), 2016).

The HRD responsibility of developing individuals for their current and future roles and the STEM OPT requirement for employment opportunities to do the same places STEM OPT workers squarely in the realm of an HRD responsibility.

The F-1 Student Experience

All OPT workers in the manufacturing engineering field at some point studied in an academic institution as F-1 students. The F-1 visa program allows foreign born, nonimmigrant students to study in the United States. Students must be proficient in English or be enrolled in an English proficiency program, have sufficient funds, up front, to support all expenses during the entire course of study and have a residence abroad they intend to keep throughout their studies. Upon meeting these criteria students can enroll full time in an academic program at a school approved by the Student and Exchange Visitors Program (United States Department of State, n.d.).

The F-1 student visa process is heavily regulated and complex. For example, required documentation includes the Nonimmigrant Visa Application (Form DS-160), the Certificate of Eligibility for Nonimmigrant (F-1) Student Status-For Academic and Language Students (Form I-20), and a valid passport. Students must also attend and pass a visa interview where they may be asked for evidence of transcripts and admission exams, the student's intentions to depart the country after completion of studies, and financial resources for all educational, living, and travel costs (United States Department of State, n.d.).

Researchers exploring topics affecting F-1 students have identified unique issues such as language barriers, social adjustment and adaptation, economic issues, career concerns, and academic challenges to affect the success and well-being of the students (Chavajay, 2013; Jackson, et al., 2013; Kuo, 2011; Leong, 2015; Lin, 2012; Pitre, 2017; Rajapaska & Dundes, 2002; Ramsay, et al., 1999; Ravichandran, et al., 2017; Russell, et al. 2010; Sa & Sabzaleiva, 2017; Schmidt, 2020; Taborda, 2020; Thomas, 2017; Volpone, et al., 2018).

Using qualitative methods, Taborda (2020) identified the biggest challenges for F-1 students as perceived by F-1 students. Respondents shared what they perceived as challenges and the researcher coded the challenges based on comprehensiveness of explanation and chronology of response. 50% of the student respondents identified work-related or financial issues as being the biggest challenges they had experienced during their F-1 journeys. A common theme was frustration in the stringent limitations placed on F-1 students' ability to work. Respondents believed having the freedom to earn would lessen their feelings of economic and financial instability. 26.5% considered language and cultural barriers to be their greatest challenge. This included difficulties in communication, connection, and assimilation. 10.5% wished being an F-1 student could be a pathway towards permanent residency in the United States. Feelings associated with the nonimmigrant aspect of the F-1 visa included fear of traveling, feeling rejected, and a lack of freedom. Homesickness and loneliness from being away from family was the

biggest challenge for 8%. 5% percent cited difficulties in navigating the U.S. system of education.

Despite the challenges, F-1 students tend to range within average for in retention and graduation matrices (Fass-Holmes, 2016; United States Department of Education, 2020). The unique challenges of F-1 students appear to be an issue with equity, meaning they must overcome more to achieve the same results as their domestic counterparts. Approximately half of STEM master's and doctoral degrees awarded in the 50 United States were awarded to nonresident aliens (United States Department of Education, 2020).

The OPT Student Experience

This dissertation is focused on master's OPT students who pursued manufacturing engineering careers. However, this is only a subset of the OPT program at large. Eligible bachelors and master's students can participate in the 12-month OPT period regardless of program of study as long as the employment directly relates to their studies and the academic institution is approved by SEVP (USCIS, 2021b). The ICE list of SEVP certified schools contains over 6,000 higher education institutions approved to host OPT students (United States ICE, 2021). Manufacturing engineering also is among many career paths eligible for the OPT STEM extension. There are over 400 programs on the *DHS STEM Designated Degree Program List*, a document published by the Department of Homeland Security providing a comprehensive list of all CIP codes qualifying for the 24-month STEM extension.

Existing research on OPT student experiences tends to either be aggregated to the larger OPT or OPT STEM population (Amuedo-Dorantes, et al., 2019; Benitez, 2021; Grimm, 2019, 2021; Habli, 2020; Monahan, 2018) or dedicated to OPT workers in fields other than manufacturing engineering (Bound, et al., 2015). The relatedness to the population of this dissertation to these populations warrants a review of the literature.

F-1 students and potential F-1 students view the opportunity to work in the U.S. as a positive (Amuedo-Dorantes, et al., 2019; Benitez, 2021; Bound, et al., 2015; Grimm, 2019, 2021; Habli, 2020; Monahan, 2018). The OPT experience is not without its challenges, however. Existing research indicates coping mechanisms OPT students employ to address these challenges and makes recommendations to address these challenges.

The OPT experience provides an avenue for students to launch their professional careers while gaining professional growth and development and exploring their career options (Benitez, 2021; Monahan, 2018). OPT students recognize the financial and career benefits (Benitez 2021; Monahan, 2018), especially when their home countries have competitive job markets or markets that do not readily accept foreign credentials (Grimm, 2021). In addition, students gain confidence in their adaptability and versatility (Benitez, 2021) and recognize that they have the skills, talents, and motivation to succeed in their careers (Monahan, 2018). Respondents in Monahan (2018) reported that their universities had prepared them for their careers on a technical level and data from Habli (2020) indicated OPT workers handle their job roles and duties well. Supporting this is the lack

of research reporting OPT job duties as a challenge for students. The majority of OPT students find their employers provide a positive atmosphere for beginning their career (Monahan, 2018) and are able to develop positive connections at work (Grimm, 2021).

OPT students face many challenges unique to the OPT experience. Grimm (2021) describes the experience as follows, “As an opportunity with an expiration date and an unguaranteed future, OPT fundamentally creates a space of betweenness for international students graduating from higher education institutions in the United States—a juncture between study and work, host country and home country, school and broader society” (p.2). The same OPT opportunity that enables the positive student experiences is simultaneously constrained by complex and restrictive governance.

OPT policy and procedure appeared as a main challenge throughout the existing research (Benitez, 2021; Habli, 2020; Monahan, 2018). The paperwork process is difficult and takes months for approval. The EAD card also takes time to arrive. The wait time for approval and the EAD card is relatively unpredictable. OPT approval, graduation, receipt of the EAD card, and the employment start date must all align before the allowable unemployment period expires. Misalignments can result in the student losing the job offer and/or OPT eligibility. Exacerbating this issue is the OPT students’ perception of a lack of understanding of OPT employment policies from employers and colleagues (Grimm, 2021; Habli, 2020). The universities, while providing good education, were not perceived as effective in understanding and assisting with navigation of the OPT process (Grimm, 2021; Halbi, 2020). The students “need assistance in areas

such as resume writing, navigating the regulations and identifying potential employers, and these services are sometimes difficult to obtain or are too superficial to have significant impact” (Monahan, 2018, p. 106). These governance issues often cause students to feel anxious about their future career (Monahan, 2018).

The state of betweenness driven by OPT policy leads students to feel vulnerable. The policies tie the student to the employer and limit the ability for students to change jobs or pursue other interests (Benitez, 2021; Grimm, 2021). The USCIS does allow OPT students to change employers, but each change brings risks such as incomplete or lost documentation, using up unemployment limits, and repeated government scrutiny. They must decide if the new opportunity is worth the risk of a procedural mishap leading to deportation. As foreign born, nonimmigrant workers, OPT students are not protected under employment laws and their livelihood is connected to policies driven by everchanging prevailing political climate and public opinion (Grimm, 2021). If OPT workers find themselves in a situation where they believe the employer is not complying with OPT regulations, they are instructed to quit the job and report the company to ICE (United States Department of Homeland Security, n.d.). Whistleblowing is a risky endeavor for someone fully protected by the laws of their country (Park & Lewis, 2018), much less an unprotected outsider.

Another common challenge the existing research identified as important to OPT students was understanding and adapting to U.S. culture (Benitez, 2021; Monahan, 2018). While students did not feel these differences led to significant cultural confusion due to

having an adjustment period in their academic institution (Benitez, 2021), the differences were enough to make the students feel like an outsider (Monahan, 2018). OPT students experience a variety of uncomfortable reactions from coworkers in response to culture ranging from ignorance to curiosity to blatant racism (Benitez, 2021). Even seemingly innocuous events like conversations about local sports can make students feel out of place. OPT students also face cultural issues relating their experiences to family back in their home country (Monahan, 2018).

Halbi (2020) and Benitez (2021) identified emotional challenges such as stress, anxiety, instability, and uncertainty to be areas of concern for OPT students. Grimm (2021) found OPT students were negatively affected by urgency and ambiguity. These emotional challenges stem from the pressures and dire consequences related to the complex OPT regulatory process and the betweenness of living and working as a foreign-born, nonimmigrant worker.

In addition to the benefits and challenges of OPT, existing research identified factors to improve the OPT student experience. Developing a peer network was among the most recognized (Grimm, 2021; Halbi, 2020; Monahan 2018). Peer networks fill the knowledge gaps left by academic institutions and employers and reduce the ambiguity in government policy. Network building should begin as early as possible and continue throughout the student's career (Monahan, 2018).

OPT students should also seek information. Early in the academic journey students should understand policies and plan for their careers. They also need to

understand the unique financial situations they will face throughout their OPT journey and have strategies to overcome the situations. Seeking information helps increase the likelihood of properly preparing for events such as moving to a new city to begin work (Halbi, 2020).

Understanding opportunities and remaining flexible are also strategies for success (Halbi, 2020). The OPT opportunity is temporary and fraught with uncertainty; students need to be open to all current opportunities and be thinking ahead to the next available opportunity whether in their home country or abroad (Monahan, 2018).

Additional coping strategies include developing healthy coping mechanisms, leaning on spirituality, being persistent and independent, being open to other cultures, and developing strong time management skills (Halbi, 2020). Respondents in Benitez (2021) identified the following methods to preserve the student's culture in the OPT workplace: talk about their home culture with colleagues, furnish food and gifts from their home country, and share music, videos and pictures that represent the student's culture.

The population for this dissertation is a subset of the populations represented in this section of the literature review. While the level of generalizability or transferability to OPT students in manufacturing engineering fields is unknown, it is likely that some level exists. The OPT student experience is a state of betweenness (Monahan, 2018), pushed and pulled by positive opportunities and unique challenges. The population in this dissertation may find themselves in the between as well.

The Foreign Born, Nonimmigrant Skilled Worker Experience

OPT and OPT STEM extension are not the only programs providing foreign born, nonimmigrants an avenue to work in the United States. OPT students are welcome to pursue these avenues after OPT but OPT is not a prerequisite for these avenues. This section will explore the benefits and challenges of the foreign born, nonimmigrant experience.

The United States Citizenship and Immigration Services lists twenty-one current, distinct classifications for nonimmigrant temporary workers, not including F-1, M-1, and J-1 student visas (USCISc, 2021). These classifications cover a wide spectrum of professions, from seasonal agricultural workers to professional athletes and performers. The most relevant classification to the population of this dissertation is the H-1B Specialty Occupations classification. H-1B holders must fill positions requiring a bachelor's degree or higher and application of a highly specialized body of knowledge (USCISc, 2021). In general, engineering professions may fall under this category allowing engineers to work in the U.S. for a period of six years. Right on brand, the H-1 program is heavily regulated and complicated to navigate. There is even a selection lottery in the mix, where eligible candidates are randomly selected until the yearly cap of awarded visas is reached (USCISc, 2021). Research into foreign born, nonimmigrant skilled workers tends to either include OPT workers with H-1 workers or studies H-1 workers alone. While this existing research does not directly apply to this dissertation population, it may be similar enough to provide insight (Banerjee, 2010; Lo, et al., 2019;

Lowell & Martin, 2012; Moulik, & Mazumdar, 2012; No & Walsh, 2010; Peri et al., 2015; Varma ,2021; Vijayakumar & Cunningham, 2016; Wright et al., 2017).

Much like OPT opportunities, other expatriate opportunities provide tangible and perceived benefits to the worker, assuming the opportunity is well constructed (Moulik, & Mazumdar, 2012). These include personal growth, improved communication skills, and career growth.

Vijayakumar and Cunningham (2016) described four motives causing individuals to expatriate. First, expats may be looking for adventure or new experiences. Others are looking to earn a higher salary for their family. The third category leaves to escape a current situation at home and the fourth expatriate to enhance their career or for a job promotion. They found that for the Indian population of H-1 workers, the individuals seeking new experiences reported more success in adapting to their new environment. Individuals looking for higher salaries to take care of their families reported less success. The remaining two categories did not seem to affect reported success rates. The lower adaptation success rates in Indian H-1 workers may be because of real and perceived lower pay packages in the IT industry compared to domestic counterparts (Banerjee, 2010; Vijayakumar & Cunningham, 2016). While government regulations require H-1 workers to receive comparable market pay, a policy set in place to protect the domestic workers not the temporary workers, the use of contractor and subcontractor hiring systems often leads to lower salaries for the temporary workers (Banerjee, 2010).

Cultural differences may cause challenges for foreign born, nonimmigrant workers (Banerjee, 2010; Lo, et al., 2019; Moulik, & Mazumdar, 2012; Varma, 2021; Vijayakumar & Cunningham, 2016). Varma (2021) identified differences in the areas of social interactions, working styles, communication, and management to be potentially problematic. Beyond differences, foreign born, nonimmigrant workers may face stereotyping and biases in their careers (Banerjee, 2010; Lo, et al., 2019; Varma, 2021; Vijayakumar & Cunningham, 2016). This can lead to negative career and financial ramifications as well as damage to the psyche.

Lo et al. (2019) described a concept of *brain waste* of expat workers. Despite being skilled and highly educated, temporary workers in the U.S. felt they were taking positions that did not capitalize on their potential. Similar to the research previously discussed on OPT workers, foreign born workers face structural and institutional challenges in career options. Differences between labor market structures and policy restrictions also cause challenges resulting in brain waste.

Additional challenges for foreign born, nonimmigrant workers were family (Banerjee, 2012; Bordoloi, 2015; Moulik, & Mazumdar, 2012) and repatriation (Moulik, & Mazumdar, 2012) issues. H-1 workers could spend six years in the U.S., more if they attended school and/or participated in the OPT program. That is a considerable amount of time to be separated from people back home. Banerjee (2012) and Bordoloi (2015) revealed damage to the careers and psyches of the spouses of H-1 workers, as they are not allowed to work on spouse visas. On the other side of the coin, temporary visas are

indeed temporary. With few exceptions these workers will need to return home at some point and reassimilate into their home cultures.

The relevant existing literature on the foreign born, nonimmigrant experience echoed many of the same themes as literature on the OPT student experience. These workers seem to have similar forces pushing and pulling - the positive opportunities versus the temporary nature of the opportunities, living and working here yet not fully welcome or protected as insiders.

Summary

Literature reviewed in this chapter provided insights on policy and research related to OPT workers in manufacturing engineering fields. The reviewed research utilized a variety of methodology and method and used a variety of research approaches from qualitative to mixed methods to qualitative. Aside from OPT and STEM OPT governmental policy, very few scholarly sources exist that directly address OPT workers in the manufacturing fields. Instead, this review looked at information of varying generalizability or transferability to this dissertation topic. Reviewed sources fell into the categories of manufacturing engineering, the F-1 student experience, the OPT student experience, and the foreign born, nonimmigrant skilled worker experience.

CHAPTER 3

METHODOLOGY

This research used qualitative methods to allow this population to reveal social and cultural factors relevant to their own stories. Qualitative methodology is appropriate for addressing complex, social aspects of a largely unknown situation such as the experiences of OPT workers in industrial engineering. The perceptions, symbols, and constructs used to describe the events are valuable, as these internal constructs are the drivers for intrinsic motivation and perceptions of self-worth (Creswell, 2014). Narrative Inquiry provided a design for collecting the stories provided by the participants and interpreting patterns of meaning from the stories (Creswell, 2007; Zeegers & Barron, 2015).

Methodology Foundation

The array of theoretical foundations comprising Human Resource Development (HRD) supports the practice of employing multiple and diverse research methods to inform HRD practice. Swanson's (1995) three-legged stool presented economic theory, systems theory, and psychological theory as foundations of HRD. Gilley and Maycunich (2000) added learning theory, organizational theory, and change theory to the

foundational framework of HRD. McLean (1998) suggested the foundational framework of HRD may consist of hundreds of theoretical disciplines, much like the legs of a centipede. This variety of HRD theoretical disciplines was built using a proportionate variety of qualitative, quantitative, and mixed research methods. HRD researchers, accordingly, are justified in using a variety of research methods to inform HRD practice. Qualitative methods were selected for this research due to a deficiency of existing data and complexity of the topic rather than a rigid constructivism or transformative worldview (Creswell, 2014). Narrative Inquiry is complementary and serves a different purpose rather than being in direct competition with postpositivist methodologies (Thomas, 2012).

Method Foundation

Narrative Theory, specifically Narrative Inquiry, was selected as the research approach for this study. This method was chosen over other qualitative methods, namely Phenomenology, Ethnography, and Grounded Theory (Creswell, 2014). While Phenomenology and Narrative Inquiry have considerable overlap in theoretical basis and procedure (Josselson & Hammack, 2021), Narrative Inquiry was selected over Phenomenology due to the researcher's involvement in the subjects' stories (narratives) and the research goal being to find the subjects' perceptions of experiences rather than the essence of specific phenomena (Creswell, 2007). Proper Ethnography techniques are labor intensive and require prolonged fieldwork; the resources needed for this method surpass the resources available and so Ethnography was eliminated as a method

(Goulding, 2005). Grounded Theory requires a similarly prohibitive resources and is used to develop a theory that explains a process or action, an objective not included in the scope of this study (Glaser & Strauss, 1967).

The Narrative Inquiry approach draws from the humanities including anthropology, psychology, and sociology (Creswell, 2007; Lal, et al., 2015). While the term Narrative Inquiry was coined by Connelly and Clandinin in 1990 (Clandinin, et al., 2007), the roots of utilizing narrative in research can be tracked through researchers from multiple disciplines including the works of Blumer (1969), Bruner (1987, 1991), Dewey (1938), Kermode (1967), Kleinman (1988), Labov and Waletzky (1967), Polkinghorne (1988), and Ricoeur (1988). This body of work informed that an individual's reality is based on internal perceptions of the world. Narratives provide a comprehensive construction of this mental reality. The narrative has characteristics such as timeline, actors, setting, and actions all based on the storyteller's perception of importance rather than an external reality. Narrative Inquiry, according to the originators of the term, is described as follows:

Arguments for the development and use of narrative inquiry come out of a view of human experience in which humans, individually and socially, lead storied lives. People shape their daily lives by stories of who they and others are and as they interpret their past in terms of these stories. Story, in the current idiom, is a portal through which a person enters the world and by which their experience of the world is interpreted and made personally meaningful. Viewed this way,

narrative is the phenomenon studied in inquiry. Narrative inquiry, the study of experience as story, then, is first and foremost a way of thinking about experience. Narrative inquiry as a methodology entails a view of the phenomenon. To use narrative inquiry methodology is to adopt a particular narrative view of experience as phenomena under study (Connelly & Clandinin, 2006, p. 477).

Data is collected in the form of the words used to describe the stories of individual experiences (Creswell, 2007). Included in this data is the relationship between researcher and subject, as Narrative Inquiry recognizes the impact of this relationship on the data (Clandinin & Connelly, 2000). The presentation of a story is a social action, giving clarity to the human experience (Lal, et al., 2015). Studying the narrative of OPT student workers in manufacturing engineering fields is studying the way they experience the world (Connelly & Clandinin, 1990).

Method

Participants

The population for sampling in this dissertation included alumni from a rural, public, Midwest NCAA Division II university. Per OPT requirements, the subjects attended the university as F-1 Visa international students. Subjects were all industrial engineers who graduated from a STEM approved master's program and entered a post-completion OPT position in the manufacturing engineering field. Further requirements included graduating after 2013 and no longer being in OPT status at the time of the study. Using these criteria, the researcher compiled a list of possible subjects that were

reachable through phone calls or text messaging. These individuals were entered into a simple randomized name generator at wheelofnames.com. Individuals selected by the name generator were contacted one by one until the desired number of subjects (3) agreed to the study. Clearly, having an avenue to contact the subject indicates a personal relationship between the researcher and the subject. Narrative Inquiry does not preclude this type of relationship and gives avenues to address personal relationships, as described later in this methodology chapter (Clandinin & Connelly, 2000). Given the limited population size, the gender, age, and country of origin of the respondents was purposely withheld to promote subject anonymity. No boundaries were placed on these three variables.

The sample size for this dissertation was three subjects. Narrative Inquiry requires a relatively small sample size, with even a sample size of one respondent being adequate (Creswell, 2007; Clandinin & Connelly, 2000). Narrative Inquiry focuses on purposely selecting candidates that can provide a rich understanding of the topic and the researcher going into extensive detail on each subject rather than obtaining a large quantity of respondents (Clandinin & Connelly, 2000).

Interview Procedure

In Narrative Inquiry, the desired data is the story created by the researcher and the subject (Clandinin & Connelly, 2000). The in-tact story is the unit of analysis (Lal, et al, 2015). The data collection tools employed in this dissertation are unstructured interviews and researcher journal records (Clandinin & Connelly, 2000).

Interviews were conducted and recorded via Zoom. While considerable discussion has been made regarding modality of interview, such as Braekman et al. (2020), Opdenakker (2006), Archibald et al. (2019), and Gray et al. (2020), safety concerns regarding the Coronavirus rendered the conversation moot for this dissertation. That being said, research indicates participants prefer video conferences over phone interviews and, as long as rapport is significantly built, video interviews and in person interviews do not significantly differ in quality (Gray, et al, 2020). For this study, rapport was built prior to the study and should not be significantly affected by interview modality.

Narrative Inquiry employs unstructured interviews (Clandinin & Connelly, 2000; Lal, et al., 2015). This does not imply that the researcher enters the interviews sans plan and remains silent throughout. “It does mean that the practitioner, who has long been silenced in the research relationship, is given the time and space to tell her or his story so that it too gains the authority and validity that the research story has long had” (Connelly & Clandinin, 1990, p. 4). To create a collaboration of mutual storytelling it is important for the researcher to first listen to the subject’s story without interfering or leading with a series of variable-based questions (Clandinin & Connelly, 2000). This allows the subject to reveal the timeline, actors, setting, actions, etc. that most influence their reality.

For this reason, each interview in this dissertation began with the following request: “Please tell me the story of your OPT experience.” The request was followed with silence, allowing the subject to begin their narrative. In instances where the subject asked a clarifying question, the researcher encouraged, “Tell me everything, I would like

to hear the whole story.” The researcher actively listened until the subject finished, at which time clarifying and probing questions were asked. The researcher then began participating in the narrative, as appropriate.

As time allowed, requests for further narrative regarding the dissertation objectives were made. The process of requesting, listening, clarifying and probing, and participating was followed for one sub-topic at a time, in order. The follow-up requests were as follows: Tell me the story of your STEM OPT Formal Training Plan. Tell me the story of learning the job duties and roles of the OPT position. Tell me the story of work socialization and acculturation. Tell me the story of complying with USCIS regulations. This process continued until the subject indicated they did not wish to add any more to the narrative or until 90 minutes elapsed, whichever came first.

Researcher as Instrument

Trustworthiness

According to Connelly and Clandinin (2006), “Like other qualitative methods, narrative relies on criteria other than validity, reliability, and generalizability. It is important not to squeeze the language of narrative criteria into a language created for other forms of research” (p. 7). An important criterion for qualitative research is trustworthiness.

Zeegers and Baron (2015) offered the following components to trustworthiness:

credibility, transferability, dependability, and confirmability:

Credibility is achieved by maintaining internal consistency in the design, using such strategies as researcher reflexivity. Transferability is the extent to which

research outcomes are applicable in other research contexts, established by careful documentation of the research itself and its context within the wider body of research literature. Dependability is established by the researcher establishing a direct relationship between the data and the activities within a given site that generated it... they must align. Confirmability takes the place of objectivity in qualitative research, for we acknowledge that research, even which conducted in positivist and quantitative style, is never objective (p. 79).

The strategies employed in this dissertation to ensure trustworthiness are described in the paragraphs to follow.

One of the core characteristics defining qualitative research is reflexivity (Creswell, 2014). The researcher reflects on and shares how their personal experiences affect the study. The purpose of reflexivity is not to eliminate objectivity, but rather to acknowledge its presence and influence on the study (Holmes, 2020). As previously mentioned, in regard to data collection, a researcher journal serves as a tool for reflexivity (Morrow, 2005). The researcher journaled prior to the study, using the data for the Statement of Positionality, and journaled upon completion of each interview. Post-interview journal data was used in the narratives as appropriate.

The careful documentation of theoretical framework and methodology of this study lend credence to trustworthiness through transparency (Lal, et al., 2015) and transferability (Zeegers & Baron, 2015). Triangulation is a strategy where multiple data sources are used to delineate themes (Creswell, 2014). Three subjects were interviewed,

as opposed to one or two subjects, for the purpose of triangulation. The researcher's journal served as another data source. Member checking consists of returning the analysis to the subjects for scrutiny (Creswell, 2014). This practice serves two purposes, validating the analysis and protecting the subjects from unwanted disclosure of information. In this study, the redacted transcripts and the audited analysis (narrative) were all provided to the corresponding subject for inspection and editing before being submitted to the dissertation committee.

Auditors were used to confirm accuracy of the transcripts and the delineation of themes in the narrative (Creswell, 2014). As the researcher hails from several generations of U.S. citizens by birth, auditors for each subject were required to have close cultural ties to the subjects' country of origin. This dynamic allowed auditors to identify subtleties in the data the researcher may have missed and, in conjunction with member checking, reduce the probability of the researcher distorting the subject's voice.

Statement of Positionality

Holmes (2020) listed four components to a positionality statement – a description of the researcher's lenses, potential cultural influences on the researcher, the researcher's predisposition toward the population of the study, and the influence of project context on the research process. This guideline informs my Statement of Positionality presented here.

Researcher's lenses. My personal worldview on research is decidedly pragmatic (Creswell, 2014; Sekaran & Bougie, 2016). I believe the best answers and solutions arise

at the intersections of postpositivistic searches for external realities and constructivistic explorations of subjective meanings. Research approaches running the gamut of qualitative, mixed methods, and quantitative each have individual strengths and unique purpose in application. I view discussions treating internal and external realities as mutually exclusive to be a wasted opportunity; the effort would be better spent on solving actual problems.

Potential cultural influences. My educational background in natural science and industrial management necessitated understanding and application of quantitative, hypothetico-deductive methods. Educational and career-related experiences with education, leadership, and communication fields provided exposure to quantitative methods.

While I selected a decidedly constructivistic, qualitative approach for this study, my worldview and background is evident in this dissertation. An example is only using the first-person pronoun in sections where necessity dictates, as in this Statement of Positionality and data analysis. In preceding chapters and sections I was more comfortable referring to myself as “the researcher.” The wide range of methods included in the literature review, theoretical framework, and suggestions for future study also typifies my pragmatic lens.

As our experiences affect every aspect of our lives, my experiences affected this research. Rather than attempting to list and explain every experience that may in any

degree affect this research, I will use the Pareto Principle (Moore, 1897) as inspiration and identify the selection of experiences that I feel comprise the bulk of effects.

I am a cisgendered, hetero, White female. I am culturally Christian but not actively practicing. The ancestry I was taught to identify with is an English, Irish, and German mix. True genealogy is more complicated, but for the sake of perceived identity English, Irish, and German is accurate. My nationality and national identity are decidedly American. My ancestors have not seen a motherland in at least five generations and in most cases nearly ten generations. Growing up, discussions on genealogy were limited to variances in family recipes e.g., ham and beans vs brats and sauerkraut, and the origins of our rather beefy body types.

I grew up situated squarely in small town America with significant ties to both the Midwest and the Upper South. From birth to thirteen years, I lived in a Midwest town with a population under 2,000. At fourteen I moved to an Upper South town with a population under 7,000. My undergrad was in a similar town. It was not until my 30's that I moved to an Upper South city with a population of over 60,000 to complete my master's degree; I lived there approximately three years. My current Midwest town has a population of approximately 20,000.

I am and have always been lower middle class. I am the fifth child of working-class parents - a coal mine manager and a registered nurse. My professional career history has been in teaching and manufacturing. University professors are often considered

middle to upper middle class; however, my current income does not support this higher socio-economic label.

I am the second in my extended family to earn a master's degree, after a cousin-in-law. I will be the first to earn a Ph.D. Several family members have bachelor's degrees, but the ratio is much less compared to members with some or no post-secondary education. I am not aware of any living family members who did not graduate from high school. Literacy and education were universally important to both sides of my family, but only to the extent of being able to read well and to find a 'decent' job.

Until I went for undergraduate studies at eighteen I had markedly limited exposure to people of different cultures. Kindergarten through eighth grade I attended a school with no discernably non-White classmates, meaning I had no classmates that openly identified as non-White. In the entire K – 12 school system there were only three children identifying as POC, all siblings and all considerably younger than I was. As per my knowledge, there were no immigrants or children of immigrants living in the town. The only anomaly was a teammate on a summer softball team. I am not aware of how she identified so I will just say she was different than I. The topic of race never came up. We were friends during softball that summer but lived in different cities in a time when landlines had long distance charges, so we were not able to talk outside of the sport or keep in touch after the season was over.

My Upper South high school system had a more diverse student body but was still predominantly White. I had my first experience talking about national heritage with

someone of significantly different heritage and my first conversation with someone using English as a second language while in high school. The fact that I remember these conversations is a testament to how rare and novel the experience was for me.

Undergraduate studies opened a new world of opportunities for intercultural interactions and marked a distinct change in my own culture. The university was, again, predominantly White, but there was a diverse domestic and international student body. I had the good fortune to form relationships with people outside my race, religion, and nationality. My favorite experience from undergrad was dating and marrying my husband who, at the time, was on an F-1 visa coming from the Caribbean.

My master's classmates and friends were almost exclusively international students, largely due to most domestic students taking the classes online. I chose to take classes face-to-face, and international students must take most classes face-to-face due to U.S. Department of Homeland Security regulations, providing opportunities for friendships to grow organically.

I have been at my current university for approximately eight years. I started as a PhD fellow and two years later became a full-time instructor. This university has the same online versus face-to-face dynamic, meaning most of my live interactions are with international students. Each semester over half of my total face-to-face students have been international students.

One effect on the research based on my listed experiences is that the population and I come from very different backgrounds and much of my understanding of their

narrative will be based on their ability to describe their experiences. I have never experienced studying in a foreign country. The population comes from higher socio-economic backgrounds than I; strongly but not exclusively evidenced on the resources needed to acquire a visa. The subjects of the study are non-American and likely non-White and/or non-Christian. I do not 'know what it is like' to be suddenly exposed to American culture, function using a non-native language, have non-negotiable familial expectations to complete higher education, or obtain employment while adhering to OPT regulations. Developing an accurate narrative will require listening and clarifying skills of the researcher and the subjects as opposed to relying on shared experiences.

As previously mentioned, my cultural experiences have two distinct chapters. The first was essentially devoid of intercultural interaction, the second essentially devoid of homogeneity. Age eighteen to present has been an immersive journey into paradigm destruction and reconstruction. Through relationships with individuals from diverse cultures spanning nearly twenty-five years juxtaposed with the ethnocentrism and parochialism of my early years I have developed an appreciation of individual narrative. This constant process of learning by exception taught me to challenge preconceptions with fastidious care. I may not be able to create a narrative of shared experiences with the subjects of this study, but through listening, clarifying, and contrasting we can create a narrative of shared understanding.

Predisposition toward population. My predisposition toward the population and subjects of this study is acute. As per reflexivity in the qualitative research process, I will

describe my relationship with the population of the study and any issues with subjectivity.

First, beyond the objective research mentioned in the literature review of this dissertation, I subjectively support government regulated immigration and non-immigrant student and work visas. These programs facilitated personal and professional relationships that otherwise would have never been possible; I therefore have positive emotional ties to the programs. Similarly, I subjectively celebrate diversity and inclusion in regard to the population of this study.

Next, my personal relationship with the population must be addressed. While the subject is hotly debated in the research community, McConnell-Henry, et al., (2009) posited that a pre-existing relationship can enhance and accelerate rapport, a necessary condition for a productive interview. In their experiences, interviews with pre-existing relationships yielded rich and multidimensional data because resources were diverted from rapport building to data collection. This rapport-building is especially important in the population of this dissertation, as the population was comprised of face-saving cultures (Kim & Nam, 1998). Proclivity to face-saving means the subject must trust the researcher not only with their narrative, but with their sense of face. OPT workers also face stringent government regulations, causing hesitation in sharing information that may endanger their visa status. For these reasons, I chose a population of alumni who graduated from my university of employment. These alumni may not have enrolled in any of my classes, but the department is small enough that we would have interacted

sometime during their master's program. Further, the subjects selected will have kept a line of communication open with me over the years; I could not contact them to participate in the study if I did not have their contact information. Typical interactions would include yearly birthday wishes and viewing posts on social media and updates and advice on career and education options. The depth and breadth of the relationship with each subject will vary, but there will be a pre-existing relationship with any selected subject in this study.

McConnell-Henry, et al., (2009) also shared some strategies for minimizing the challenges with interviews involving pre-existing relationships. One concern in their studies was power relationships and the blurring of roles. Selecting only alumni who have completed the OPT experience ensures we have less of an authoritarian instructor/student role during the interview. Post OPT, the alumni is no longer a student nor does the university's DSO have any role in their employment process. Still, I am a former professor and that will affect the data gleaned from the interviews, especially considering the population consists of relatively high power distance cultures (Hofstede, 2011).

A second concern is that the pre-existing relationship can provide data that is too rich. The researcher cannot include pre-existing knowledge into the data and must protect the subject from over-sharing (McConnell-Henry, et al., 2009). Member checking will help safeguard in this aspect, as subjects have multiple opportunities to redact or modify the data before it is shared.

A final predisposition to the population is that I care for them. I am very fond of my students. I revel in their victories and mourn their losses. I wholeheartedly wish for their success. This is not a secret predisposition; I have a long-standing and well-known reputation for caring for my students. While I believe this aspect assists in rapport building and motivates me to take special care of the subject's narratives, it may also encourage the subjects to paint a happy narrative for my benefit or encourage me to paint the subjects as the heroes of the narrative.

Influence of project context. As a dissertation, this project is limited in resources such as time, funding, and manpower. My degree completion and career are riding on the quality of this project. The subjects in this study know this project is a dissertation and understand the importance of a dissertation to completion of a Ph.D. These contextual factors have the potential to influence the research method, data, and data analysis methods.

Data Analysis

Narrative research is built upon the idea that humans use narratives to organize their experiences in the world. Stories allow us to recount our own experiences and understand the experiences of others. Stories are constantly changing as they interact with social context. The story is affected by past experiences, values, actors, and setting of the storyteller. The researcher attempts to gather the story in its natural, subjective state and then make interpretations of the phenomena in terms of the meaning people bring to them. As a result, the data analysis is a multi-voiced narrative, influenced by the subject,

the researcher, and society (Moen, 2006). Data collected in narrative does not purport to be an accurate account of the subject's life as lived or even life as experienced; the data is life told by the subject and retold through collaboration with subject and researcher (Goodson, 1992).

It is important to present the narratives as an intact unit of analysis. This is what philosophically sets Narrative Inquiry apart from more positivistic approaches, such as Grounded Theory; it analyzes the narrative without stripping away the whole person through pursuit of patterns (Lal, Suto & Ungar, 2015). That being said, Narrative Inquiry does allow for some form of coding to search for characteristics of plot, setting, actors, or actions (Clandinin & Connelly, 2000). This research presents both narratives and coded analyses.

Using the data collected through the interview and field notes, as per the previously described approach, the researcher first employed the Narrative Smoothing method (Kim, 2016). This method organizes the data into a coherent and engaging story (Kim, 2016). This method was subject to audit and member checking.

Coding for this dissertation began with categorizing data per the research questions. Within these categories, data was coded to determine important settings, actors, or actions. The narratives were analyzed for the presence of any themes. This process was subject to auditing. *NVivo 12* software was used as an aid for analysis. Chapters 4 and 5 provide results for these analyses.

CHAPTER 4

RESULTS I

The stories to follow represent the experiences of three manufacturing engineers during their time working in OPT status. The subjects came to the U.S. and entered OPT with varying levels of work experience. The subjects have completed their OPT at various points in the past seven years. The parameters for selection, as described in Chapter 3, stated they must all work in the manufacturing engineering field. While not a parameter, they all also work in the quality field. The OPT periods would be somewhere between one and three years.

These stories were delivered via Zoom and recorded by the researcher. The audio was transcribed and redacted by the researcher and then sent to the corresponding researcher for member checking. Next, the researcher used Narrative Smoothing to organize and edit the story. The results were sent to the corresponding subjects for another round of member checking. The results are the stories presented here.

The stories were labeled using pseudonyms, simply, the first three synonyms of the word pseudonym that came up in a Google search. These are Alias, Anonym, and Appellation. Each subject was randomly assigned their corresponding pseudonym, and

the stories were listed in alphabetical order by pseudonym. Therefore, there was no importance or purpose to the order the stories are presented.

The stories were organized based on the interview with the subject which, in turn, was based on the research questions. The data in the first section of each story, headed R1: How did the subject perceive the OPT experience, was influenced by the invitation message and the information in the disclosures but not by specific researcher questions. Naturally, there was pushback by the subjects to this form of questioning. When asked a completely open-ended question the natural response would be to try to ascertain more details to determine what the interviewer is really trying to glean from the interviewee. Pushback was lessened by explaining why the format is important rather than focusing on the topic itself. For each subject I presented the following scenario:

I know you want me to give you a list of questions or topics to talk about but if I do that, I take over your story. It's no longer your story, it is my version of your story. For example, let's look at a different research topic. I could ask you, "what is your favorite part of Christmas? How about the food? What about the lights?" No matter what your favorite part about Christmas really is, you are going to tell me about food and lights. What if your favorite part was giving gifts or playing Christmas music? You may have never even thought to mention the lights. My questions influence the story, so I just want to hear your story because anything you say it is perfect. It is your story.

While the subjects did not necessarily come to enjoy the format, they understood the logic and begin to tell their stories. Consequently, the story in the first section is an unstructured response, providing the data that the subject determined was most significant to their OPT experience rather than data guided by a series of questions.

Each story also has sections that correspond to the research sub-questions as described in the statement of objectives. There was also a contingent research question at the end, Rcontingent: *How do the subjects describe the experience of staying connected to home*. These sections indicate points in the interview where the researcher significantly influenced the direction of the story. Instances where a clarifying question influenced the direction of the story are indicated by an asterisk and an abridged version of the follow-up questions in brackets.

Alias's Story: First Person Narration

R1: How Did the Subject Perceive the OPT Experience.

So, after I finished my courses, I was looking for OPT or Optional Practical Training in my field of study, manufacturing. I was trying for that and had been giving interviews and then I got a call from the facility which I'm currently working. I was being interviewed for the post of quality engineer. The interview was a very good experience for me. It was conducted in three different rounds. My quality manager interviewed me, then HR interviewed me, and after that the CEO interviewed me. It was a good experience. I got the job offer and was waiting for my OPT card. The company was willing to wait until I got the OPT card in my hand to start work, so once I got it, I

headed for the plant. I was introduced to everyone in the plant and took a plant walk and was showed all the different kinds of processes. It was completely new to me. My prior experiences were in a different industry, so it was a different kind of work environment. Everyone was so welcoming. I still remember I had a session with the MD, which was a 30-to-45-minute session. He asked about my prior experience and his plan to make use of my skills to develop their facility. It was a very open conversation and having that kind of conversation with top level management is really, really motivating and it showed how much responsibility I had to develop the company and the processes we work with.

Then I started my daily routine, started working on different projects, getting used to different projects. It's a fast-paced working environment where multiple projects are being handled at the same time. I was getting introduced to the operators, so I got to know them more; I always value working closely with the people on the floor. I started maintaining a very good relationship with them because trust is really important in quality; they should be willing to be upfront in explaining what is going on the floor. If some mistakes are happening or something is wrong, the idea is to quickly catch that mistake. To do that the operator plays a great role. They should come to me willingly and tell me what is going on, and we will do the problem solving together. I was able to create that kind of trust with them. I developed a good relationship, and I was available to take calls at any time, even at night shift. If there was an issue, they always had my personal number so they can contact me and tell me about the problem.

It was also a very innovative environment focused on continuous improvements, so I had the freedom to use whatever skills or quality tools I had learned in my courses. This is an important aspect; we should apply the Quality and Lean tools that we studied while we were doing courses. I've used all the quality tools we've studied, like 5S or value stream mapping. I did class projects on that and now I'm applying them to projects over here and doing so under the supervision of a very good quality manager and a huge engineering team who were there to support my activities. This was really important to me. Whatever I learned in the paper I was able to implement it in a real-world environment. I was concentrating mainly on improving the productivity, so as a quality engineer working on productivity it is like, quality is important but also the production numbers are important. I understood I had to draw a fine line and optimize productivity without compromising quality.

I also worked with customers if there was a complaint or a bad manufacturing incident. This was also a very good experience. You won't get that in school; you will be learning the theories or doing assignments but working in a real environment with different kinds of people is something you have to experience on the jobsite. I worked with people who were completely unknown to me from far away and speaking in a different dialect. You need to pick up each other's accents, but I haven't had any issue with that. The only problem would be if they ask my last name, which is huge. That is when I'll be like, "I'll just keep it short."

So, it was good. I collaborated with different customers to explain to them what is going on. I'll do problem solving from my side and present to both the customers and the team. That is how I like to approach projects; we do problem solving and solve the quality issues, whatever is happening.

Another major thing was as I started progressing and showing my skills and developing the different processes, I was also given the responsibility to improve R&D jobs. This was a really, really great opportunity. These R&D jobs come in and I have to make sure that the validation process and everything is going the right way. It was a good experience. The customers may come back in huge production capacities, but it's fun to work with R&D projects. It will be a challenge, but challenges come with great responsibility and great fun. I would say I greatly enjoyed working in the R&D jobs.

Next, internal audits. My company is focused on improvement. One part of this is having a very good internal audit team. I was part of the first internal audit team, and it was great fun. We formed two to three teams internally and we split the audit over a few days. I had to take a course for audit certification and later take a lead quality auditor course on ISO. These are things that a company can provide. They need these skills from you and they are ready to invest on providing different certifications. The goal was to set the parameters of the internal audits beyond the parameters of the external audits. If a thorough internal audit happened, then the external audit will be a breeze. We did a pretty good job going into minute detail and making sure we are not self-auditing. For example, if I am working on quality, I will not audit myself; I will be ordering a different team. We

did corrective actions and preventative actions based on the internal audits and when the external audit committee came it was always smooth sailing for us.

One thing I have to talk about is colleagues, which I believe is paramount. One of the subjects from my master's was Organizational Dynamics. This subject is really, really important. I didn't know why this subject is important at that time, but later I realized when I got into industry, especially American manufacturing. Considering you're doing a job in quality, it means you are the link between production, and you are the link between engineering, so you need this knowledge. The class shows you how you should interact in your work environment, what your rights are, and what to expect in your work culture. It also tells you how to be a good leader. I think those subjects were applicable where I work – all the stuff we studied like empathy, being in someone else's shoes, and how to be a good leader and the different types of leadership. I try to be the leader I always wanted to be.

So, I am more of a people person. All the operators were really cool, and I maintain a good friendship with them. We go out whenever we are free, like kayaking on the Missouri river. That is one of the challenges I accepted along with my colleagues. Also, doing hot chip challenges. It is always being said that Americans can't handle spicy food and my home cuisine is really spicy. But I found some colleagues who are pros at eating spicy food! The others will watch us, and they'll be like, "what are they doing!?" It is a fun work environment. We also go to restaurants serving my home cuisine and hang out.

The operators and even the MD of the company and the managers will all go out together. After work we are also friends which has made this a family-type culture. Work culture is very important to me. If you feel like you are working in a family environment, then you will put everything that you have toward developing the organization. I really like where I'm working, and everyone is so supportive in everything. I had to travel to my home country during OPT and they really supported me during that time. They made a plan, passing some of the projects to someone else or rearranging their work schedule to cover my absence. I even took the responsibility of telling them that if they need anything, even if I am traveling, I would be able to email them back. I traveled home for three weeks but there was never a situation where something was on hold because I wasn't there.

Traveling was a bit of a hassle due to the COVID situation, which is not unique to a person in OPT, but I should mention it. We didn't know what was going to happen; if I go will the borders close? Because of COVID it can happen anytime. But my trip was smooth. Regardless of anything I was expecting, I booked my ticket and went and came back. It was really fine.

R1a: How Did the Subject Describe the Experience of the STEM OPT Formal Training Plan?

When the 12-month OPT is finishing, we need to apply for STEM OPT. I needed to sit down with my manager and develop a plan describing the different tasks we will be doing, how we are going to apply my skills, and how he is going to evaluate the

performance and give feedback. So, we developed that document and we passed it on to the university's international graduate office. The requirement is to give updates every six months. We sat down together and, since my job is directly related to what I studied, it was easy.

R1b: How Did the Subject Describe the Experience of Learning the Job Duties and Roles?

Most of the job duties were directly related to my knowledge and previous work experience except for a bit of programming. I had a program coordinating measure C, which I wasn't experienced in. My manager was very helpful. He stepped in because there is always a gap in what you study and the reality of applying it. He was able to give me training. He sat down with me and helped me understand the process. I watched him do it multiple times, then I liked the way he gave me the freedom to do a couple of processes by myself. He would then review and give me feedback. After a couple of times, he was confident, and he gave that project completely to me.

R1c: How Did the Subject Describe the Experience of Work Socialization and Acculturation?

I am from a different place and a different culture, so one thing I notice is that everyone I've worked with is so eager to know about my culture. They like to hear stories about my culture, and they introduced me to their culture, like inviting me to their house parties or any special occasions.

They introduced me to the local foods. I never knew what biscuits and gravy were until I moved here, and I am a big fan of biscuits and gravy now. That is breakfast for this area, I guess. When it is snowing, we have a chili day. They made chili but they had heard that my culture doesn't eat certain meats. It was a new experience for them to understand that not all people from my culture are like that as I eat everything that won't bite me back. In addition to chili days, we have another thing that is big here – corn dogs.

I've also been camping with many of my colleagues. We go to a campsite in the RV and then we take the boat and go to the lake. In the night we made a bonfire and for the first time I experienced someone can heat marshmallows and eat it between chocolate and graham crackers [s'mores]. It was so fun experiencing the culture over here. One thing I came to understand is they know I'm all by myself over here and they felt I am one of their family members, so they kept on including me.

Snow is something new. I'm not a very good driver in snow. Most of the time we don't have to go to work when it is snowing, the company makes sure of that. But one time it was snowing while I was coming back home, my car skidded and was in a weird position. I called my colleagues, and they were there in five minutes and helped me out of the situation. They are ready to help you at any time if you need anything. If you're changing apartments, they'll be there with their truck to move stuff. They are very good colleagues and I am learning a lot about American culture.

I get invited to a lot of parties; they say I am a party person. When it comes to work, I am serious but when it comes to parties my policy is, "work hard, party hard." I

work with a lot of Americans, but there are some European expats and we all like to go for drinks after work for happy hour. It is a good way to break the ice. I remember the first two times I went with them they held the misconception that people from my country don't drink alcohol much. I'm like, "wait for it."

I am always sharing with them what it is like back home, and they have a lot of misconceptions. I mentioned about eating meats and drinking. They have a lot of questions about how it is back home, and I had to tell them many of the things they knew were correct but some of it was incorrect. There are a lot of questions about, like, getting married in my country and explain a lot of stuff. I also sometimes cook food. I'm not a good cook but I let them taste it and they really liked it. When I went home and came back, I brought them sweets and they really enjoyed that, too.

It is a give and take understanding of each other's cultures. They weren't used to my culture, but now they know a lot about it and everyone wants to travel to my country to experience what I have told them about. They are helping me understand culture in the US and go to different places, eat different food, and meet different people, friends, and family. I think this is one of the great learning experiences that you can't buy in any school. This should happen in a work environment.

R1d: How Did the Subject Describe the Experience of Complying with USCIS Regulations?

Applying to USCIS for OPT is a paperwork process. There are different timelines for it and it is a time-consuming process and requires a great attention to detail. One thing

I really liked is, for me, it was never a hassle. It was really a smooth process and one of the major reasons is that now the USCIS OPT application is online. That is new; the rule came in when I was applying. You just upload your documents and that's it. You get to track your process, and everything is so smooth. I would mention that I have heard different stories, but what I experienced was a really, really smooth process.

Rcontingent: How Did the Subject Describe the Experience of Staying Connected to Home?

The development of technology is huge now. Smartphones and Internet are everywhere; we can make video calls. This is not a generation of writing letters back and forth, so I always keep in touch with my family. I can call them daily and video calls are pretty common. I can talk to my mom back home and my sibling in another country; we connect to each other daily. It was good, but I still wanted to travel to meet my family because I didn't see them for a while during the COVID restrictions. The travel was fine. It was refreshing to take a break. I went there, met my family and friends, and then I came back. It was a good thing, and the trip was really smooth, even when I was coming back. I just had to follow COVID protocols and wear a mask.

[Follow-Up Question: Is There Anything You Would Like to Add?]

I would say, not from my experience, but I have heard a lot of stories about getting into OPT and getting an offer in the manufacturing field is a challenge for many people but one thing to keep in mind is that it is the same for everyone. It's not only for manufacturing jobs; it is the same for every job, even in the computer science field. You

need to have unique skills and some work experience and a portfolio of projects. If you have that, I think companies need these skills and are actively looking for them. With the growth in the manufacturing field these quality and industrial jobs are very important. If you have the skills, you will be able to succeed. When I was completing my CPT in a different company, I was trying to get hired over for OPT and then the COVID situation happened, and they couldn't make the transition. This was a hurdle, but there are companies who really want these skills and they will come find you.

Improve your skills and concentrate on what you need to do. While you're studying, make sure you take subjects related to the job you want to do on a daily basis. Do what keeps you motivated. For me, I need a fast-paced work environment. I don't like to sit in front of a system and work. I need to go to the floor and do problem solving. That is what I want, so I took courses based on that. What do you like to do? Get an education in that and do a lot of projects. Apply it wherever you work. That is what will help you. Leave getting trained, leave OPT, leave all that aside. What do you need your daily life to be like? What is your goal? Based on that, develop your skill set.

Another point I missed is to keep developing your skills when you're doing OPT. There are different certifications from professional organizations so keep growing and earning certifications in things like CQE and Design of Experiment. One of the things you need in the R&D environment is a solid understanding of Design of Experiment. My company is willing to develop these skills for me because it is important that I have these skills to develop future processes in the company. Companies do a good job in this;

you're developing your skills and the company is even helping you do it. When they help me develop my skills, I'm going to put 100% of my effort into the company's processes – I consider them our processes.

Anonym's Story: First Person Narration

RI: How Did the Subject Perceive the OPT Experience?

After I applied for my graduation in my last semester, I started my OPT process. Approximately 2 months before my final examination I started applying for an OPT I-20 from GISS [international services office] in my university. I was required to complete some google forms and pass the OPT quiz to get the OPT I-20. We have an option to choose the start date for the employment in EAD about 60 days from the date of graduation. I decided to choose my EAD start date on about the 55th day after my last semester end date. I thought this will give me more time to search for a good job. Also, I know that in the worst-case scenario we will have 90 unemployment days in the initial OPT period. Once this was all done, within approximately about a week's time I received an electronic version of the OPT I-20 due to COVID measures and a detailed instruction sheet from my university explaining how to file and send the package to USCIS. As far as I remember, we had to make sure that we had the latest version of the OPT I-20 and send it to USCIS within 30 days after it was received from the university along with all the required application forms from the USCIS website. I filled out and arranged those forms and sent the package through FedEx with a tracking number. Then my hunt for Jobs began; I applied for hundreds of jobs - COVID was at its peak, and the U.S. had

seen increased unemployment rates at this time. Despite all this I got a few interview calls.

I got a couple offers from manufacturing companies, but I decided I should get an engineering position. I shouldn't focus on technician or maintenance positions; after completing a master's degree I think I deserved an engineering position. I did accept an intern position at a metal stamping company, but I continued applying for other positions. The intern position was a challenging experience* but I enjoyed it. We all know there is a 90-day grace period to find a job and within only about 15 days I got their offer. It served its purpose because I needed a job to maintain my OPT status.

After two weeks I was contacted by another company for a manufacturing engineering role. They provided all the training I needed, and the position was related to the master's subjects I studied, so I joined the company. This company provides engineering services for clients, so I started taking interviews from clients and within 20 days I joined a project, starting immediately. I moved to the South, 1000 miles away. I drove the whole way in my old car. I started my job at a multinational company serving the health industry. They gave me training and they explained my roles and responsibilities – what I need to do, what my project is all about. It all related to my degree, which is good because as an OPT engineer I am expected to do the things I learned. Then I started working on the project with this client. It was going well. During this time, I worked on like 15 or 16 projects with this same company and I successfully

completed them. I think OPT gave me a lot of experience and the ability to experience working in the U.S.

Months later I got a letter from my employer that my OPT period was coming to an end, and I need to apply for the STEM extension. First, my employer helped me complete the I-983 form, the training plan for STEM OPT to get the Stem OPT I-20, and then university GISS helped me in issuing an I-20 and gave instructions to apply for the STEM OPT EAD card. I then applied to USCIS. Seventy days into the extension my employer began the process of sponsoring me for an H-1 visa. Luckily, I was selected in the second lottery, I filled out all the documents, and on December 25th – my lucky day, Christmas week – my H-1 was approved. I've been working for the same client for two years; they are happy, and I am happy working for the health industry.

*[clarifying question: Why was it a challenge?] I don't want to say it was a bad phase or something, but it was peak COVID time when I graduated – proud COVID graduate – and the product-based companies like manufacturing were cutting their resources. That was tough for me. Also, I was getting interviews, but the HR departments should understand my requirements if I need to stay. They must support me for filing all the requirements to OPT, STEM OPT, or H-1. Not every company is ready to sponsor visa requirements.

R1a: How Did the Subject Describe the Experience of The STEM OPT Formal

Training Plan?

My employer and I coordinated with each other. Basically, he set up a meeting and we both completed the training plan. The plan outlined how they are going to train me and how they can use me efficiently. I worked with one supervisor who mentored me and created the plan for me. He divided it into a six month and 12-month plan for the initial OPT. When I was approved for the OPT extension, he also helped with the six-, 12-, and 18-month plan. That's how it went; I was gradually trained to reach the point I am at now. Additionally, I was required to submit a monthly performance competences form to my supervisor which evaluates my performance in achieving goals, skills, and quality of work. Meetings would be scheduled for suggestions and areas of improvement. This process is important because my skills and knowledge will grow with my experience. This happens gradually; it's a step-by-step process so they divided the plan to map how my career would go.

R1b: How Did the Subject Describe the Experience of Learning the Job Duties and Roles?

It is tough for everyone to understand new job roles and what the practical work will be like. Before joining the company, it is hard to understand exactly what the requirements will be. Then we begin the job duties and start experiencing the work firsthand and gradually realize it is simple. There is a stark contrast between trying to imagine the work theoretically and experiencing it practically.

R1c: How Did the Subject Describe the Experience of Work Socialization and

Acculturation?

When I started this job at my current organization, everyone was helpful and guided me. They helped me grow to this level and everyone was respectful. I feel this was the most welcoming organization I have been a part of in the U.S. I haven't experienced any trouble and it has been easy. Everyone has helped me and made sure I understand everything.*

*[clarifying question: Do you have a diverse workplace?] Yeah, I've seen many people from all over the world and mostly from the states. I've seen people from at least four very different cultures.

R1d: How Did the Subject Describe the Experience of Complying with USCIS***Regulations?***

[Covered in R1]

Rcontingent: How Did the Subject Describe the Experience of Staying Connected to Home?

When I reached the U.S. I was a little terrified, you know. I was all alone; I had to be by myself. I started my degree, and it was a little different, but I really enjoyed learning things and experiencing all the things around my university life. During my master's I always stayed connected with my family. I usually called them twice a day and we would video chat and things like that. We all wanted to see each other in person but we were stuck in travel ban situations due to COVID. I want to have a grad walk [commencement]; this is my master's degree. I have been postponing it for several

semesters now waiting for my parents to get a travel visa. I can dream how happy they will be when I do my master's degree grad walk; I really want my parents to watch me receive this degree. I want to see how proud they will feel. For sure my mom will cry happy tears and my dad will be like, "He did it. He is my son." For sure this would be one of my lifetime achievements. Miss them.

[Follow-Up Question: Is There Anything You Would Like to Add?]

Don't ever forget your EAD dates and time limits to apply for OPT and STEM OPT - your friend might have different dates and you have different dates. Don't depend on others. If you don't understand, ask for help from your advisor. Report any address changes or employment changes to the university and SEVP portal correctly. The OPT and STEM OPT processes are pretty simple and straightforward.

Have as much fun as possible at college, I really had a great time at college but at this stage I really miss those days and can't get back to them... so have fun and remember to be a good student.

When I started this job, I was afraid. I didn't know how I could deal with all the people around me. Everyone is different, I'm in a different state and different place, different jobs. All my roles and responsibilities are new for me. I had confidence in what I could do, but I didn't know what they wanted me to do. It was tough but everyone was nice and helped me a lot. For example, I was afraid to stand up and speak in the meetings with everyone looking at you and you are the odd one there. But they were really nice, and it wasn't like that. I still remember my first day at the meeting. I was supposed to

attend the meeting around 8:00. I reached there by 7:30 and just sat alone in the conference room. But everyone was so nice and helpful.*

*[clarifying question: How long did it take you to go from scared to OK?] It took me like one week. Just one week and I started going out with them and having lunch every day. It's like a family here.

One story about my work is that new people have walked up to me while I'm working and started talking to me continuously in Spanish. I just say, "Hola, como estas and I really don't know a single word other than that in Spanish!" and both of us just keep laughing. This is because people think I'm from Puerto Rico. But everyone is nice at my workplace. We share each other's food. I give them some sweets from my country, and they always give me candies and treats.

Appellation's Story: First Person Narration

R1: How Did the Subject Perceive the OPT Experience?

Well, as you say, this is my story, so I have to start from the beginning; it has a beginning and a possible ending. I had completed my bachelor's degree in engineering, and I was faced with two options. One is to stay in my home country and work or to pursue further education opportunities. When I considered furthering my education abroad, I narrowed my options to three countries, one of which was the U.S. The main reason I wanted to pursue a master's degree was to get exposure to how things are in another country. What are they like in terms of development? Are they more progressive? I wanted to see the real difference between my home country and the country where I

would study. That is the real thing; I want to know how things go in very rapidly growing countries and what type of technology they've been using, which makes a difference in terms of the development or job enrichment of the workers. I ultimately chose to do a master's in the U.S. because when you think about business and a place where technology rules, obviously the U.S. is there. The U.S. is a highly esteemed country, a top country that others look up to, so I decided to study in the U.S.

So, what are the benefits for students studying in the U.S.? For a comparison, the UK has a program similar to OPT where you can go study as a student and then you have a chance to work for 36 weeks. When it comes to the USA, when I started this process, we had an option to work for 12 months. When comparing the UK and USA I had limited chances because of only having a 12-month OPT period. Then someone told me the U.S. is trying to give more labor opportunities to the students, so they are trying to increase the OPT period from 12 months to 36 months. That is three years so if they get approved then it's going to be a very golden opportunity for all the students. So, I crossed my fingers and applied to the various universities, and I got admitted to a university in the Midwest in a manufacturing engineering related master's program.

So far so good, right? I got admitted and started the classes. The first class I took taught APA formatting. What is APA writing? I never used that term before when I was back home. I saw how small, small things make a difference and the difference of how the education system works was shown in this first class itself. Back home we always had to write in our own words; that is how I had been raised from childhood onwards. But,

when it came to the USA my first class in my master's degree said, "It doesn't matter – you read it from somewhere, please reference them." It means we give the author credit. It's not like I created my own thing, right? Someone taught me; I listened to them and then I just use my own views and my knowledge and my language to just represent the same thing. This was easy for me to learn. I loved how the first class was useful to view some differences in the way the professor or the reader who is going to read my writing in that context, they will understand that, ok, this person referred this book or this website or this video, whatever it is, and they have more chances to go in depth. If a book consists of 400 pages but I only reference one paragraph of one chapter, I can refer the reader to the source, and they have a chance to see the whole book rather than one paragraph. They have a chance to learn more if they are really interested. That is how I view the importance of referencing.

During my master's, the first semester was very unclear. I wasn't sure about how things were going to work, especially the assignments. However, my professors were very, very helpful from day one. They tried to help the international students out because they know it's very different compared to studying back home. When we submitted the assignments it's not like writing on paper and giving to the professor by hand. It should be online, so we must write in a *Word* document, and we have to save that document. We must upload it directly into the university portal. This was all a new concept for me; so very, very new. So I went through this uncertainty, but it is the very first assignment. From the second onwards I got used to it; from the first semester to the second semester, I

just got used to it. It is very easy, to be honest. We don't have to worry about spelling or writing as we do in writing by hand because everything is just added in the *Word* documents.

During my master's degree, I started to look for options the university could provide. One of the major advantages I got was being associated with a professional organization. My university is actively involved in that. We have a chance to participate, especially for the manufacturing engineering related master's program. The professors had already been active in the professional organization for over eight years, so I have a chance to be a part of that. This was really eye opening for me; I could really see what I'm studying and what is out there in the real world and how they parallel each other. What is going on outside and how is it related? I had a chance to see how the concept is really applying outside. Like 5S or Six Sigma, we hear these terms in class, but we never have a chance to see the person who is using them every day. But, in the professional organization I met the person who is really using it every day and he's been talking to me directly and that makes so much of a big difference. So, that is the way I was helped a lot by the professional organization. We had a chance to attend many conferences where I have a chance to talk to a number of people who are working in my field. This was the first time in the U.S. that I was communicating to someone outside my university and in a professional manner. If I didn't have this opportunity and this platform, I don't know where I would be. I recognized the opportunity and used it in the right way, I believe.

Maybe I did, maybe I didn't but I believe I used it in the right way. So, that is the way I benefited from the professional organization in my university.

The last semester of my master's degree came, so I applied for the OPT. There is lacking factor at this point. So, we have to think about the grades and the projects and the term papers and these kinds of things, right? Whenever we are in the final semester, I believe it would be helpful if something like International Student Services would make some class or at least a workshop to show like, "this is the form you have to fill out and these are the details you have to give." If they have some kind of workshop it is going to be very beneficial for all the international students.

Still, we figured out how to apply for OPT because we had seniors who went through the process before us, and we had a chance to ask them questions. What is right? What is wrong? What do I have to fill out here? What do I have to fill out there? I had a chance to do this. What if a new person came without any contact to the university? He would have to do it by himself. You can search online right now, but how effective is it going to be? We don't even know that, right? The problem is, if we make a mistake it's going to be the end of our chapter. We will lose the chance to use OPT. This is a very, very crucial step. Because I had the chance to ask my seniors who had already studied and already applied to OPT, I made it through this step.

I believe if we had any system from the USCIS or at least some pro forma or a model available online that we could refer to, we could make sure whatever we are doing is in line with the requirements. If we had this, it would be a great benefit to the students

because no one knows what is right until something goes wrong. Only then will we know we made a mistake. There is no quality gate. If you have a quality gate you have to pass through it. If it is a mistake without automatically stopping the process, we don't have a process to catch the mistake, the defect is passing to the next stage. That is what the manufacturing industry says – stop that defect at the point the defect occurs; we don't want to send the defect to the next station because it will increase the lead time. We must fix the defective unit and meet the production requirements in order for it to go to the next location. We should have something at least like a pro forma. The USCIS and the university should work together to make some form because initially we must show the students how to fill out the forms, what are the requirements, and how crucial it is. If you make a mistake it's going to create a big problem. No one knows you're going to make a mistake until you make the mistake and then you are done. We don't have any option to correct it.

One reason I am stressing this point is that my friend filled out his form. We have to pay \$410 for the DD or the demand draft for the USCIS. So, I don't know if he made a mistake or if he thought it would be a good idea, but he paid \$411 instead of \$410. That one dollar made a big difference. Because of that one dollar his whole OPT got rejected and he did not get to use his OPT option. All the struggles he had overcome in those two years of his master's degree and at the end he didn't have any option. He had to leave the country. The intended purpose of OPT is to allow students to practically train in whatever they learned in the courses they completed. But because of this silly mistake – its' a silly

mistake, right? He just paid \$1 extra. Does it really make a big difference? I don't know, but it made a big difference to USCIS.

In terms of students, how many people will know? If you pay \$1 more or less, it's going to get your entire OPT denied. How many students will know? If the students will have any access to these kinds of discussions, these kinds of dos and don'ts, it's going to help the students start because this is the first step. If the first step goes wrong, then you've already ended the journey. You are unable to consider your next steps. So, that is my experience about the initial stage of OPT.

After this what do we have to do? Optional Practical Training so we get training, right? We apply for a company so we're going to get training outside the university. You have to have a job – you have to make sure you have a job. So, we apply to the company websites. So again, this is another scenario. How are we going to apply to a company? By writing a resume. To be honest, my university helped me a lot in terms of writing it because I didn't even know what a profile might look like. What format should it be? So, it helped me a lot to at least know like what the name, address, and career goal is. Then the education and, if we have experience, experience and then at the end we have any achievements or the seminars or so on. So, at least they have given some pro forma I can go with. I believe all universities are doing this, so it's going to be easy for the students to get their resumes started. Once they get started, they know how to update or change or modify.

When applying to the companies there was a major problem I came across. I find a company to apply to, I'm giving all my details, I'm filling out the application, and some companies at the very end they will say they don't offer any sponsorship or don't take any CPT or OPT candidates. One application may take 40 to 50 minutes depending on how rigorous the process is; the average is 20 to 30 minutes. It's difficult submitting all this information. So, whenever you're trying to apply to several companies at any given day – I applied to at least 30 companies any given day – and then at the end of the process they say they don't accept CPT or OPT, how will we feel? They have asked questions like how I would react in certain scenarios. They asked what I know about TQM, Total Quality Management, so I explained the principles of TQM. I explained everything and at the end of the final step they say, "No, you are not eligible." I can at least say I know something, that is good, but the morale is very, very low. It is very discouraging. Why? What is the reason? If you tell me upfront then I don't waste my time, right? That was one of the biggest problems I had.

Another thing I came across was that often a company will take the resume and all the student's information, but they never respond. Never, ever even responded! This is a big issue because students are already limited. Let's say there are 100 companies. 50 are ruled out because they don't participate in CPT or OPT for whatever reason. Out of the remaining 50, some are asking for two to three years of experience. So, out of the 100 companies there will be 20 I can apply for, so I fill out the application and give everything they ask for – and wait. How many days do I need to wait? Two weeks?

Three weeks? A month? If it were certain that if you don't hear from someone in a month or some other set time frame, like there is some mechanism where your application is deleted after a set amount of time, then it would give the students the certainty that they know they need not worry about that position. If there were a company that followed this kind of scenario it would help the students for sure.

Coming back to my story, I got a call from one staffing company. I didn't even remember when I applied with them, but I got a call from them saying my resume is selected for a quality engineer position in a multinational manufacturer. I said, "Oh my God! Is it real?" I said yes to the position and asked the staffing company for the offer letter. I'm very glad that staffing companies like the one that called me know the OPT process because if it is a direct company, they sometimes don't know the process. The staffing company knows because they had been working with students for, I don't know how many years. It was easy; they gave me the offer letter with the start date and the description of the job and then and then I had to submit to my university so that they know the company, position, and start date. This way my OPT process starts in my university, also.

It is very important to update the university regarding what offer letter you received. Once we give the details the university is going to give the updated I-20 with the new employer and employment date and all those things. Again, the students need to know how very important it is to update the university when we change employers. My university is very keen about explaining these things to the students, but I'm not sure

about other universities, how they are doing. I believe for each step students are taking to apply for OPT there should be a workshop, so students know why each step is important and have a chance to understand exactly what to do. Let them know this is how the process works, it starts from A to BB to CC to D. Let them know that if you do not report to your university there will be a break in communication with USCIS. I believe my university did a great job with this, for sure, but I strongly recommend all the students go through the university and make sure they are doing it the right way. The students should cross check with the university if they are not getting any information.

So, how OPT works is first you apply for the 12-month OPT. However, you don't wait until the 12th month to apply for the OPT STEM extension. We can apply for the extension within 60 days or right before 60 days. That means in the 10th month you have a change to apply for the OPT extension and, if you have a job, you must give those details to the USCIS and fill out another form. Same problem again, if you make one mistake – one single mistake – the process is over and your OPT extension will be denied. Again, the same scenario. If we had any pro forma or format example, we could crosscheck what we are doing. With the OPT extension, the company also had to fill out some stuff on the form. How many companies know their EIN number? That is their international American standard employer identification number or something. So, how many companies will know that? It's a big question but companies don't know what it means unless they have already been across these OPT issues before.

So, that is the scenario. The employer must fill out the form and sign it and we send it to the USCIS with the required amount of the demand draft. So, for that it's going to take again 120 days. It depends on how many applications the USCIS has in process. You may get the response immediately or you may get less response rate here and there. The best thing is when you get your OPT card and you can start working from that day onwards. It's good that you don't have to wait for any additional data or anything.

In that transition period from completing the initial OPT and being able to start the extension so many companies are saying you don't have work authorization, so you have to quit. That is a very big problem for the students. The student doesn't want to quit because it is not that easy to find a job, for sure. So why is this gap happening? The student doesn't know when to start applying for the second OPT. If you know before the end of the 12 months you can start early so you don't have a gap. If you don't know until the end of the year, then you're done. You have to wait for two months [the period after sending in the form and before receiving approval] so technically you don't have a job and you don't have any work authorization to work for these two months. On top of that, your resume has a two-month gap. The student must know these things very, very clearly. Why it is important and each and every step.

In coming to the OPT extension there is a thing called an assessment. It is a student evaluation the company must write to say what you have been doing the last six months. Your manager needs to write whatever you've done so far in six months and whatever you're supposed to do in the remaining period. We complete this form and then

send it to our university and the university will update to the SEVP portal. We must do this process every six months, so in 24 months we technically have to do it three times because at the end of the second year you don't need to do anything. In the meanwhile, you may have a chance to file for an H1-B or whatever.

That is all from the OPT point of view; I'm just explaining how you apply for OPT and what the struggles may be or what you need to be really careful about while applying.

When it comes to how I started my job and how I feel about my job, as I said in the beginning, when my OPT period started, I tried applying to so many companies. Some of them responded, some of them didn't. Many companies weren't sure about the process. They thought I was like a resident alien worker. This means they don't know what paperwork they have to do or how to do it. If they had an open resource, it would be helpful. The U.S. has so many websites in terms of government, right? Any number of federal websites. Why don't they open websites for the students and then show the companies it doesn't matter from 10 students to 20 or 50, 1000, 2000 or whatever the numbers, if you want to take an international student to your company and give a job here are the requirements and the guidelines you have to go with. If they have something like that, I will say the maximum number of companies have a chance to benefit. Today the biggest problem is labor; everybody knows that. International students are very eager to work with the new company and new people, so we are available. The companies need labor. We need some work in our related fields. There is gap between the two; the

companies don't know how to grab this guy and put him in his workforce because of the paperwork, because he doesn't even know what it takes. If he knew there would at least be a chance to take a step forward. There should be a pro forma, open website where we can see if we have A, B, C, D documents then you're good. At least give some information like that. It's going to benefit both the company and student both ways.

When it comes to my job, I started as a quality engineer at a multinational manufacturing company. I'm very, I will say, blessed to have that job starting out because it is a very big company, and I will never forget that experience. To be honest, because of that company I'm here today and landed my current full-time job. The reputation alone of this multinational manufacturing company is known throughout the world. The first day I'm very nervous like, "What are they going to ask me? Do I have to write any exam?" I don't know. But when I went to the company, they said we would have some kind of orientation. This is very, very nice; they have orientation with around two weeks of mentorship. Technically I just follow one person; that's all I have to do. Nobody asked me what I would do, I just follow one person to see what he is doing and then he will explain what I have to do. That was a very pleasant experience for sure.

Unfortunately, like I said, that was with a staffing company, and they let me know the plant would be ending the project soon. So again, I need to start looking for a job. I started searching again; I put my resume together and I applied here and there. One day a company came to the plant where I was working to conduct job interview sessions [The plant allowed outside companies to come recruit employees transitioning out of the

organization at the end of the project]. I gave this company my resume and my email and just like that they said they have openings in their facility so if you are interested, we will call you back. But – they called me back after six months. Six months! I didn't know all companies work differently. Some people give a resume and within a week they will hear yes or no, some will take like a month or two months, but the situation for me was six months.

Within these six months I have to have job, right? So, I joined another staffing agency, and I followed a different career path for these six months. This career path, however, was not my cup of tea. I still had to do it because I must be in a valid work authorization and have to work somewhere, you know?

Then finally after six months these guys called me back. They called me in for an on-site interview and everything went OK. After a week they said I had been selected and it was a full-time position. I switched my gears again from the alternate career path back to manufacturing, where I started from. It's been two years. It's going well. This was just my experience.

There are two raw materials for this whole OPT process. One is the students; one is the company. But the student must understand the process and the company has to understand the process, only then will this OPT program work the way it is supposed to. If we have the information open for everyone, then only they have a chance to see the real benefit of OPT in terms of the company and in terms of the student. That's all I can say.

R1a: How Did the Subject Describe the Experience of the STEM OPT Formal Training Plan?

With my employers, they already knew. They had already been in this situation working with so many students, so they said every six months we have to have an evaluation. My manager would say every month. He didn't want to wait for six months so he would say like, "This month your job is to know what the process is on station one, what the process is on station two, station three. What do you know so far?" Every month he's going to ask me for an update and ask if there is something I want to learn. He was very open to me, and he knew the process very well.

For the company to give this detailed information they have to know what evaluation they have to give. Just showing some form doesn't make any sense. We need more details like why is this important to the students as well as the company. This way the evolution makes more sense for both parties. For me, they did this the way they are supposed to. It was pretty easy because he had done it before, and they had already integrated it into the company plans.

R1b: How Did the Subject Describe the Experience of Learning the Job Duties and Roles?

It depends on how you look at it. Number one, you are not going to get everything in day one. That's what we must understand first. Everybody gets nervous. Obviously, that happened to me in the beginning, but we need to see the bigger picture. What is the small thing I can achieve today? You consistently make an effort. You don't just build a

big rocket. Someone would say, “Oh my God, this is too big for me to handle!” No, we just make a small piece and add a part, add a part until we make the rocket. So, after 10 days you will at least know 10% of your job.

The other thing is to talk to people. Ask them questions. You get more information from the people who work on the floor, so just ask them, “How can I help you? What are the things I am able to help you with? What are the areas we can improve your job?” They are going to give input so you can take that input and go to your manager. You can show the feedback you got from the employees and how they are operating. You can tell your manager, “This is what I’m looking at and this is what I’m thinking to implement.” He will say yes or no, it depends on the current priorities. It depends on what duties are already assigned. He’ll say like, “No this is not our priority right now, please go ahead and do this work.” or, “Yes, it’s a good idea. Please make a note whenever we have a chance, we will discuss it.” Again, it depends on how much clarity we have for our roles.

When it comes to job duties, obviously, we have to go through the pressure. Even though in the beginning they say you are a student; you have a chance to learn, they don’t have the resources to give me more leeway. If they said two weeks – two weeks; that’s it. After the second week you will be on your own so you will learn it’s not like someone will spoon feed you. You must know to do whatever you’re supposed to do.

RIc: How Did the Subject Describe the Experience of Work Socialization and

Acculturalization?

That's the thing, it differed from workplace to workplace. When you're working with 100 people around you it's going to be different. When you are working with two people it is going to be different. For me in my first job I have this massive plant. There are many people I work along with. The first problem I have is the pronunciation.

Whatever I said they're unable to understand right away, so they will ask, "What? What? What?" because it's new, right? It's new for them to listen to me and how I'm going to pronounce the words. After a while they got used to it. You may feel offended, but it's OK. It's OK because it's not your mistake and in the same way it's not their mistake.

Also, sometimes they may be having a bad day or not be in a good mood, you know? You are trying to talk to them, but they can't understand you and they are not in a good mood. You have to realize, OK, maybe I can talk to him later. Every day is not a good day, and every day is not a standardized day for everyone. You should see things in this way. If someone is a little bit rude to you, you just think, "I only observed this one time, it's OK. Let it go." If it is happening continuously then we should see where the real problem is. Is it me or is it that person? If you talk to 10 people and 5 are reacting very rude or something, then it may be a 50/50 chance. Maybe I'm asking the wrong questions or irrelevant questions, things they're not supposed to know, or they don't even know what I'm talking about. You have to see how people are responding to you.

I think the people are really trying to help you out because they know you are new. They are trying to help you out for sure in the beginning days and how you treat

them is going to make a big difference. It's going to make your job easier or harder depending on how you are treating them. If you're treating people with respect and dignity, you will definitely have good chances of learning more things because we must maintain good, healthy relationships with the coworkers. That's for sure. They are the ones who will help at the end of the day if you don't know something.

I don't want to generalize, but in my experience the smaller companies and bigger companies were different because of exposure to diverse people. The multinational company I worked for was bigger, but they never saw any foreigner coming to their company and working alongside them. I was shocked that they didn't even know what I was saying, to be honest. It was a big, multinational company known throughout the world but only the managers and above were able to understand me. Whoever was supervisors and lead operators didn't even know what I was talking about. That was a company in a city, a big city, not in a rural remote area. I was shocked, but I thought about it and if someone else came to my home in my home country, I may also feel the same and not even be able to understand him or know what he's talking about. In the small company, my second employer, there had been more exposure. There had been so many faces like mine. It's not new for them. In other companies, especially in manufacturing, I would say it's not that easy to just jump in and get along with the people because they are a bit isolated. They have been working in their own station or they have only been communicating with a limited number of people, not communicating with everyone. When it comes to some other fields, they have more exposure. They interact a

lot. They have conference calls and several clients. We don't normally see that in manufacturing. It's a big difference, I would say.

R1d: How Did the Subject Describe the Experience of Complying with USCIS Regulations?

[Covered in R1].

Rcontingent: How Did the Subject Describe the Experience of Staying Connected to Home?

To be honest, because of work I never got a chance to go back home. The period of OPT and the stage of processing of my current immigration status took five years. I'll say this is not only my case; I have seen so many people just like me but then I see people in OPT who have been home three or four times within the three years. What kind of job you get is going to make a difference. Is it a full time or a contract or temporary? Also, how closely is your job related to your field? Are your job duties matching whatever you studied? So, if you change career paths in the middle of OPT, whenever you go home to visit your family as you are coming back, they will ask you why it is different. So, I'm afraid and didn't want to go. I didn't want to get rejected so I just waited. In my current immigration status, it is more stable. I just answer to the port of entry, that's all. In OPT you must go for an interview, justify your importance to the company, and provide supportive documents. [Each time an OPT student reenters the country they must justify their status. Many universities, such as UC Berkley, University of Michigan – Dearborn, and Columbia University have webpages dedicated solely to instructions for traveling during OPT (Columbia University, 2022; UC Berkley, 2022; University of Michigan –

Dearborn, 2022).] That was the situation for me. In this way it's very difficult. I will say it. Very, very difficult. Especially when you're on your own from day one onwards. When you leave to go on the flight from your own until you get back home. You are going to be by yourself. We must be very, very, very strong for sure. So many times, you feel depressed and so many times you will say, "Why did I come?" You will have so many things in your mind because you are the only one. Who is going to answer? You will ask your own questions and you will know all the answers, for sure no one else will know. We need to be self-strong and whenever you really badly miss them just try to talk on the phone and explain it to them. Tell them what is going on and this is the reason I am unable to come home. You have to make an open conversation so they will know, "OK, this is the problem. That is the only reason he is unable to come." When we don't have open communication, they will think something is not going right, so they also get depressed. It's not worth it because I know I am already struggling here, why make them struggle and worry about me? Be on your own; just prepare that you know this is how it's going to be, and it will take as long as it has to. You have to accept it; that is the only thing I can say. I accepted it. I know it's going to take a long time, so I didn't keep the thought in my head that I want to go back home. I only get the thought whenever I am facing so many problems like changing the job or having some issues on the job. You know, everyone has a good day and a bad day. It's quite normal. It's not unusual. You're a human and so an emotionally dependent person. We have bad days, but we will get through them. It's no problem at all, just stay in connection and try to talk to your family

and friends. Get positive feedback from them so you will have the positive inputs so at least your feelings will move in a positive direction. Then everything will be set.

Summary

The purpose of this study is to better understand the narrative of OPT workers in manufacturing engineering fields. The narratives relating to R1, how do subjects perceive the OPT experience, are products of an unstructured, open-ended question. This allowed the respondents to express themselves and determine the principal timeline, actors, setting, and actions to their stories (Allen, 2017; Clandinin & Connelly, 2000). The four subsequent research sub-questions (R1a, R1b, R1c, R1d) were informed by existing literature, summarized in Chapter 2 of this dissertation. The responses to these sub-questions stemmed from open-ended questions and provide rich data. However, the researcher providing a specific and direct topic of discussion is an important distinction from R1. The contingency research question (Lavrakas, 2008), Rcontingent, arose during the interview. Previous interactions between the researcher and the subjects led the researcher to expect the subjects to talk about the subject's connections to home. In each interview the subjects gave limited information in respect to this topic, so the researcher explored Rcontingent with each subject.

These narratives stand alone as valuable results on their own merits (Connelly & Clandinin, 2006; Pepper & Wildly, 2009). These narratives represent the experiences of the subject as perceived by the subject and filtered for retelling in the context of this study.

In addition to these narratives, the interviews and researcher journal were further analyzed. A discussion on the research questions relevance and any major themes that emerged from the analysis of these narratives will be presented in Chapter 5.

CHAPTER 5

RESULTS II

Per the method of this study, the audio collected in the Zoom recordings was transcribed by the researcher to a text transcript. The researcher then redacted identifying information and the subjects member checked their corresponding transcript, referred to in this chapter as the final transcript. The redacted and member checked transcript, along with the narratives in Chapter 4, provide the data for the analyses in this chapter.

Analysis of the data is sub-categorized by analysis of the research sub-questions and discussion of emerging themes. These analyses seek to understand the narrative of OPT workers in manufacturing engineering fields and delineate variables for future studies.

Analysis of Research Sub-Questions

Evaluation of Research Sub-Questions

As mentioned in Chapter 1 and Chapter 2, there is a dearth of research on manufacturing engineers in OPT status. The research questions were extrapolated from literature focusing on either more general or tangential populations. Therefore, it is

important to determine if the research questions were relevant to the purpose of the study, to better understand the narrative of OPT workers in manufacturing engineering fields.

To determine the relevance of the research sub-questions, the final transcript was deductively coded using the research sub-questions as categories (McKibben, et al., 2020; Xu & Zammit, 2020). Only the data from R1, *How do subjects perceive the OPT experience*, was included in this analysis. The rationale being the data from this response was driven by the subjects, the remainder of the data in transcripts was driven by the researcher's questions. The transcripts were coded, rather than the narratives, because the narratives were subjected to Narrative Smoothing.

The transcripts were coded by separating the transcript, line by line, into words or short phrases. The codes were forced into five mutually exclusive categories, the STEM OPT Formal Training Plan, learning job duties and roles, socialization and acculturation, complying with USCIS regulations, and 'other'. The category of STEM OPT Formal Training Plan was given hierarchy over other categories, as data may also fit into the learning job duties and roles and complying with USCIS regulations categories. Data that could be considered as fitting into both the STEM OPT Formal Training Plan category and any other category was assigned to the STEM OPT Formal Training Plan category. The code for each individual category was tallied and divided by the total number of codes. This quotient was multiplied by 100 to yield the percentage of total codes.

The results are given in Table 1. The R1 portion of the final transcript was audited by a research assistant. The researcher results and auditor results were compared to determine interrater reliability (IRR). The overall coder agreement was over 80%, indicating the percentages are valid for the purpose of this study (Creswell, 2014; McKibben, et al., 2020).

The deductive coding results indicate critical flaws in the research questions. The subjects gave minimal responses that coded into R1a, *How do subjects describe the experience of the STEM OPT Formal Training Plan*, and R1b, *How do subjects describe the experience of learning the job duties and roles*. The data from Table 1 is included in discussions of R1a and R1b later in this chapter.

Table 1

Relevance of research questions to subject narrative: Percentage of total codes

	STEM OPT Formal Training Plan	Learning the Job Duties and Roles	Work Socialization and Acculturalization	Complying with USCIS Regulations	Other
Alias	0%	6%	23%	2%	68%
Anonym	2%	7%	2%	34%	54%
Appellation	2%	3%	2%	38%	54%

Over 50% of the subjects' responses to R1 coded into the category of 'other.' Inductive coding was implemented to categorize the 'other' data (McKibben, et al., 2020; Xu & Zammit, 2020). To investigate this category, the portions of R1 that coded to the 'other' category were isolated for analysis. The transcript was already separated into significant words or phrases during the deductive coding. These words and phrases were analyzed independently by the researcher and the auditor. Both used the process of assigning specific codes to the data and grouping the codes into themes. This process of grouping continued until the coder was satisfied that a main theme had emerged and could not be combined with another. Interrater reliability between the researcher and auditor validated three categories for the bulk of the data, namely performance and achievements, interactions with the university, and the job search and interview process.

Alias coded for all three of the categories in descending order of performance and achievements, interactions with the university, and the job search and interview process. Anonym's responses categorized into the job search and interview process and into performance and achievements. Appellation coded to the job search and interview process and into interactions with the university.

Relevance of Research Sub-Questions.

R1a: How do subjects describe the experience of the STEM OPT Formal Training Plan? This category garnered the least number of coded responses among all the coding categories from R1. Couple this with section R1a of the narratives, and it is clear this question lacks validity. All three subjects gave utilitarian narratives in response

to the topic, framing the Formal Training Plan as a document to be filled out in accordance with USCIS regulations. Anonym and Appellation specifically indicated a distinction between their actual training and development plans with their employers and the requirements of the Formal Training Plan. The Formal Training Plan is a compiled version of their actual training and development plans, as the Formal Training Plan is insufficient for their needs. The company's plans are more detailed and more frequent than the USCIS requires in the Formal Training Plan. All respondents described the STEM OPT Formal Training Plan as non-problematic. R1a should be eliminated as a unique research question as the subjects consider the Formal Training Plan as a USCIS regulation and separate from their company training and development plan.

R1b: How do subjects describe the experience of learning the job duties and roles? This sub-question also did not fare well as a category in the coding of R1. The narrative responses in section R1b provided rich data despite the lack of directly relevant data in R1. Based on the interview and researcher journal data, the respondents seem to view learning their duties and roles as a function of their job, uninfluenced by their OPT status. The inductive coding of the 'other' category from R1 reveals another possible reason for a low initial response rate to this topic. Alias and Anonym provided a significant amount of data related to their performance and achievements. Appellation did not speak much on his performance or achievements in comparison to other categories, but he did mention them. Compiling the positive data regarding training from R1a, the responses from R1b, and the subjects opting to discuss their performance and

accomplishments, it is plausible to conclude the subjects are having positive experiences in learning their job duties and roles. It is not plausible to conclude that OPT status is a mediating or moderating variable for this sub-question.

R1c: How do subjects describe the experience of work socialization and acculturalization? Alias provided significant data in R1 for this category, Anonym and Appellation did not. However, Alias and Appellation both provided very rich data in their R1c narratives. In R1, Alias and Appellation also provided rich data on socialization and acculturalization that coded in the ‘other’ category. This data later coded as interactions with the university or the job search and interview process. The subjects view the socialization and acculturalization process as starting from the point they arrived in the U.S., with each job as a phase of this process. They did not view OPT itself as a phase of this process. The topic of socialization and acculturalization during OPT is important to the subjects, but not as a direct function of OPT.

R1d: How do subjects describe the experience of complying with USCIS regulations? Anonym and Appellation both provided rich data for this category in R1. When asked about complying with USCIS regulations in R1d, both felt they had adequately covered the topic in R1. However, Anonym circled back again to this topic during the ‘do you have anything to add’ phase of the interview. This topic is clearly important to Anonym and Appellation’s stories. Alias confirmed some of the main points shared by Anonym and Appellation when asked about the topic in R1d.

Rcontingent: How did the subject describe the experience of staying connected to home? Rcontingent was not a predetermined research question. Through rapport with the subjects, the researcher knew family was a significant factor for each subject. The researcher assumed the subjects would include family as actors in their narrative. In each interview, the subject's family did not manifest as a significant actor during any planned section of questioning. This violation of expectation prompted the researcher to add the inquiry. The subjects provided rich data to the question when asked. The subjects, of course, valued the topic of family but did not associate the topic as significantly related to the event of OPT. The discussion was more correlated to the entire period away from home, from leaving their country to attend a U.S. university continuing the present and their present immigration status. COVID was identified as a significant event relating to family, but again, this did not uniquely relate to OPT.

Informed consent document. The informed consent document had some influence over the subjects' responses. The document states, "Some reasons you might want to participate in this research are to help people understand what it is like to be an OPT worker in the manufacturing engineering field. You may help researchers, schools, employers, and workers understand your story. This may help the experiences of future OPT workers by helping them know what to expect and know they are not alone in their experiences."

All three subjects adopted this as a purpose for the interview and used the interview as a platform for advising various stakeholders in the OPT process. This

influence is most evident in Appellation and Anonym's stories. However, Alias added advice for OPT students in the end of his narrative when asked if there was anything they wanted to add. Throughout the Narrative Inquiry process, Appellation and Anonym reiterated the concept of this study helping to inform stakeholders in the OPT process. This may or may not have affected the content of the narratives, but it did affect the subjects' framing of the story.

Discussion of Prominent Themes

The narratives of the three subjects, in their entirety, along with the researcher journal were analyzed to determine prominent themes. These themes are important in the context of the three subjects of this study. This analysis was designed to complement the narratives presented in Chapter 4 rather than present conclusions that generalize to a population. Themes were generated independently by the researcher and an auditor using the inductive methods. The data was coded into themes and similar themes were grouped together until independent themes were identified. Two themes were independently generated by both parties, reluctance to disclose information and the importance of sustained professional development. A third theme, improving the regulatory system, was partially generated independently. The researcher identified three stakeholders in improving the system, namely, the university, USCIS, and the employers whereas the auditor recognized the USCIS and the employers' roles in improving the system as two separate themes. Both parties agreed to one integrated theme, improving the system through the university, USCIS, and the employers. The fourth theme, originated by the

auditor and confirmed by the researcher, was the theme of uncertainty versus reality. These four themes will be discussed in the paragraphs to follow. Any first-person narration in this discussion is from the researcher's perspective.

Prelude Theme: OPT is Amazing

OPT and STEM OPT is an appreciated and highly sought-after program. When implemented successfully, the students and their employers both benefit. Sometimes a researcher's inclination is to jump into finding deficiencies and solutions; in this study that would dishonor the narrative. The narratives of Alias, Anonym, and Appellation are stories of growth, success, and perseverance. Each has achieved impressive goals and believe in the concept of OPT. The subject's narratives did not glaze over this theme; therefore, I will also give appropriate homage. Suggestions for improvement do not originate from a state of chronic dissatisfaction, rather, from a desire to make something good into something better.

Improve the Regulatory System

A priority theme derived from this data is that the subjects view coming to the U.S. to study and then work in OPT and the STEM extension as one consolidated system. This is a reasonable expectation; OPT workers are on F-1 student visas and are required to communicate with their university DSO. The regulations give the impression of a single, ongoing system. The subjects expect the processes of the system led by the university, USCIS, and the employer to work together. Collaboration and information

sharing among the three entities will increase the success and satisfaction of the student, benefitting all parties.

The cautionary tales regarding the OPT paperwork process from Appellation and Alias's narratives are not as remarkable as we might hope. In my eight years working with students seeking OPT, I have amassed countless stories of OPT rejections for minor and often unfair conditions. One rejection came after the application was lost by the shipping carrier despite the tracking information showing the forms had been delivered to the proper address. One student received their EAD card one week late. The employer fired the student for missing the start date. The OPT was rejected because they were fired.

The real takeaway is that students lose the OPT opportunity if there is any defect in the OPT or STEM extension process. There are no appeals, no redoes, no litigation and (of course) no refunds. The student has 60 days to clear out of the country. These are disproportionately high stakes for the current efficiency of the system. Options for improvement include simplifying the system, allowing for corrections and appeals, or ensuring universities, students, and employers have access to clear information and assistance to navigate the difficult system.

Working as a cohesive system and improving the system would address concerns with the job search and interview process, as well. Tight timelines and employer lack of regulatory knowledge exacerbate the already difficult process of finding a job after college.

Reluctance to Disclose Information

Confidentiality and the ability to member check the data were keys to obtaining participants' consent in this study. Despite confidentiality, each subject filtered their narratives to obscure or omit aspects of their realities. While filtering the telling of stories is common, these subjects were more focused on disclosure than other subjects I have worked with in the past. There are several possible causes for the subject's reluctance. My rapport and long-term interactions with the subjects meant I had prior knowledge to much of their story. This may have led to an abundance of caution to make sure I did not disclose more than they intended. Perhaps national differences in personality traits, such as openness (Kajonius et al., 2017), caused me to perceive the subjects as unwilling to disclose. The subject's willingness to disclose personal information (WTD) could be influenced by many factors (Degutis, et al., 2020).

The auditor for this analysis believed the reason for concealment was clear from the narratives; the subjects did not want themselves or their current employers to come under scrutiny of the USCIS. If accurate, this further indicates an inefficiency in the OPT system. These subjects successfully navigated the OPT system, legally and ethically. There is not a fear of getting caught breaking regulations but likely a fear stemming from mistrust of the system.

Sustained Professional Development

The OPT experience is directly related to the HRD field (Rothwell, et al., 2009). The subjects were all actively involved in training initiatives with their employers, and all

completed the STEM Formal Training Plan with the help of their employers. However, training was not the component of HRD that most resonated with the subject's narratives.

Training for the current role is seen as a given, an obvious component of the job. The stronger link between HRD and the subject's narratives is professional and career development (van Dijk, 2004). The subject's described their jobs in terms of achievements and performance. They are looking for the next opportunity, the next challenge, the next professional certification. These subjects actively participate in the organizational goals of their employers.

Framing the narrative in terms of achievements may have further implications. Perhaps the subjects framed their experiences in this way for my benefit. Students and alumni enjoy sharing tales of their achievements and I enjoy hearing these tales. The way these subjects narrate their experiences may differ from my expectations due to cultural influences in self-promotion (Deschacht & Maes, 2017). The subjects may be expressing overall positive psychology (Gregory & Rutledge, 2016) or a tendency toward eudaimonic well-being (Di Fabio & Palazzeschi, 2015; Ryff & Singer, 2006) through their narrative.

The auditor for this analysis believed the motivation was more pragmatic. The auditor posited that the emphasis on professional certifications and unique skills was a symptom of OPT regulations. The auditor pointed out OPT workers are constantly needing to set themselves apart from other job candidates and justify their significance to their employers. In order to maintain their position in the U.S. workplace an OPT worker

must be better, faster, and stronger than all other candidates, relegated to positions that no other qualified American worker wishes to accept. As the OPT period is a maximum of three years, OPT workers need to leverage their opportunities and be looking toward the next phase of their careers, wherever they arise.

Uncertainty Versus Reality

Had this method not included an auditor, the theme of uncertainty versus reality would have been missed. The auditor included the following in their conclusions, “Socialization to American culture was easy.” Instantly my brain short-circuited. I was influenced by my own experiences and by witnessing the experiences of incoming international students over the past decade. I held a strong preconception that socialization and acculturation would appear in the narratives as a challenging topic. Notwithstanding my imperception, the auditor was correct. The subjects provide several stories on the successes of interacting with people up and down the supply chain, both American and of various immigration statuses.

This led to the broader theme. Several actions in the narratives convey an initial fear to something new followed by a positive description of the action. Facing the uncertainty of the action was far worse than the reality of the action. This is a key distinction. The first day of work was not hard, the first meeting was not hard, and getting along with coworkers was not hard. The uncertainty of facing the unknown was the constraint limiting the throughput.

This theme may correlate to Hofstede's (2011) cultural dimensions, such as uncertainty avoidance and power distance. Perhaps cultural differences in subjective well-being (SWB) (Diener, et al., 2003) or eudaimonic well-being (Church, et al., 2014) predispose the subjects to accepting what comes after the initial uncertainty. Regardless of causal factors, the narratives indicate that subjects would have benefitted from reducing uncertainty rather than reducing obstacles in the actions themselves.

Summary

Alias, Anonym, and Appellation provided rich data for R1, *How do subjects perceive the OPT experience*. Their narratives, presented in Chapter 4, were further analyzed in this chapter to determine the relevance of the research sub-questions and to identify themes in the data.

R1d, *How do subjects describe the experience of complying with USCIS regulations* was a highly relevant question. The regulations drive the narrative's descriptions of plot, actors, setting, and action throughout the entire narratives. R1a, *How do subjects describe the experience of the STEM OPT Formal Training Plan*, does not necessitate its own sub-question and can be considered part of R1d.

R1b, *How do subjects describe the experience of learning the job duties and roles*, provided rich data, but the narratives were more driven by other HRD functions such as professional and career development. Framing the research sub-question to be more comprehensive of HRD functions may have provided richer final narratives.

R1c, *How do subjects describe the experience of work socialization and acculturalization*, provided rich data. Alias, a self-described people person, provided rich data regarding socialization and acculturalization in R1. Anonym and Appellation provided rich data when directed toward the topic. The subjects viewed socialization and acculturalization more as a function of their entire time in the U.S. rather than OPT as a separate epoch.

The perception of the entire stay in the U.S. being one unit of time also affected discussions of family. Family are important actors to the subjects, but the major actions for family-related stories occurred closer to when the subjects first came to the U.S.

Four themes were identified in the narratives. These are improving the regulatory system, reluctance to disclose information, sustained professional development and uncertainty versus reality. These themes were inextricable to the premise that OPT is an amazing opportunity. The OPT experience has had a vastly net positive effect on the subjects.

CHAPTER 6

DISCUSSION AND CONCLUSION

Using qualitative methods, this dissertation related the stories of the experiences of students with manufacturing engineering backgrounds graduating from U.S. universities and gaining OPT employment in related fields. The resulting narratives provided perspectives for current and future OPT workers in manufacturing engineering, for higher education institutions servicing these workers, and for employers opting to utilize these workers. Due to the dearth of scholarly research into the experiences of OPT workers in manufacturing engineering fields, a qualitative approach was employed to better understand the narrative of these OPT workers and delineate variables for future studies. This study was not intended to produce generalizable data to any population; the intended purpose was to start a conversation regarding an underrepresented population.

Relevance of Findings to Literature

The lack of literature directly relating to OPT workers in manufacturing engineering fields guided the researcher to review literature relating to the F-1 student experience, the OPT student experience, and the foreign born, nonimmigrant skilled worker experience. While discussing the relevance of the findings to the existing

literature is appropriate (Anderson, 2010), this chapter does not imply group-to-individual generalizability of research or suggest convergent findings (Fisher, et al., 2018; Hong, et al., 2017).

Chapter 2 listed unique issues affecting F-1 students from the existing literature (Chavajay, 2013; Jackson, et al., 2013; Kuo, 2011; Leong, 2015; Lin, 2012; Pitre, 2017; Rajapaska & Dundes, 2002; Ramsay, et al., 1999; Ravichandran, et al., 2017; Russell, et al. 2010; Sa & Sabzaleiva, 2017; Schmidt, 2020; Taborda, 2020; Thomas, 2017; Volpone, et al., 2018). Of these, language barriers and career concerns were also included in the Chapter 4 narratives. Career concerns were strongly represented in each of the subject's narratives. F-1 students expressed frustration over the regulations prohibiting and limiting their ability to work during school. Though a different set of regulations, the narratives also expressed frustrations in work regulations.

Research regarding the OPT student experience showed students view the opportunity to work in the U.S. as a positive (Amuedo-Dorantes, et al., 2019; Benitez, 2021; Bound, et al., 2015; Grimm, 2019, 2021; Habli, 2020; Monahan, 2018). Having a positive perception toward OPT was a strong theme in Chapter 4, as well. Difficulties in OPT policy and procedure presented another rich, common theme (Benitez, 2021; Habli, 2020; Monahan, 2018). Subjects described the same state of betweenness described in the literature, being pushed and pulled by positive opportunities and unique challenges and continually driven by status regulations (Grimm, 2021; Monahan, 2018). Subjects identified factors to improve the OPT student experience such as developing a peer

network (Grimm, 2021; Halbi, 2020; Monahan 2018), seeking information (Halbi, 2020), being persistent and independent (Halbi, 2020), being open to other cultures (Halbi, 2020), understanding opportunities and remaining flexible (Halbi, 2020; Monahan, 2018), and taking steps to preserve the OPT worker's culture within the work environment (Benitez, 2021).

The narratives were the least similar to the existing literature on foreign born, nonimmigrants (Banerjee, 2010; Lo, et al., 2019; Lowell & Martin, 2012; Moulik, & Mazumdar, 2012; No & Walsh, 2010; Peri et al., 2015; Varma ,2021; Vijayakumar & Cunningham, 2016; Wright et al., 2017). Wide variations in age, family composition, and time in the U.S. likely affect the relevance between the literature and the narratives. The closest commonality was cultural differences (Banerjee, 2010; Lo, et al., 2019; Moulik, & Mazumdar, 2012; Varma, 2021; Vijayakumar & Cunningham, 2016). Cultural differences regarding social interactions were important to the narratives but were often positive or neutral events. The literature presented cultural differences more as a negative factor.

Implications for Practice

HRD practices focus on employee, organization, and career development within an organization (Chapman, et al., 2018). HRD develops individuals in their current roles, prepares them for new roles, and unleashes their creative potential (Rothwell, et al, 2009). An employer-employee relationship utilizing CPT, OPT, and the OPT extension could span nearly four years. Considering the United States Bureau of Labor Statistics

(2020) estimated the average tenure of architecture and engineering occupations at only five years, employers could benefit from tapping this pool of qualified and motivated candidates.

While training for the worker's current role is important, the narratives suggested OPT workers are driven by preparation for new roles. Professional and career development is a valuable opportunity for partnership between the OPT worker and HRD. The subjects expressed distinct willingness to expand and enrich roles and to participate in continuing education. These activities should be clearly linked to solidifying the worker's importance within the company and be part of a long-term career development plan.

The subjects framed their narratives from a distinctly positive perspective. When working with similar OPT workers, HRD practitioners may benefit from matching their perspective. As a simple example, if asking, "How are you doing? Are you having any problems?" does not produce a rich response, try, "How are you doing? What is working out well for you? What resources do you need?" The employee may not express their needs as a list of negatives or challenges, instead expressing needs by omitting them from a list of positives.

Suggestions for Future Research

This dissertation presents narratives from three manufacturing engineers describing their experiences as OPT workers. While the results presented in Chapters 4 and 5 are nongeneralizable, they do provide a precursory look into this underrepresented

population. The findings of this dissertation warrant further research into OPT workers in the manufacturing engineering field.

The narratives paralleled several of the findings presented in the literature review. However, there were several points from the literature review that were not present in the narratives. The narratives also indicated variables and themes that were not present in the literature. This indicates OPT workers in the manufacturing engineering field may benefit from research directed specifically at the population. The literature review presented an array of qualitative, quantitative, and mixed methods studies that could be adapted to focus on OPT workers in the manufacturing engineering field or could be stratified or aggregated by career field. The dearth of existing research means vast possibilities for new studies. Promising new topics of study include the relationships of universities, students, and employers as a system and the role in uncertainty in OPT.

Some actions, such as socialization and acculturation and maintaining family relationships, were tied to the subject's entire experience in the U.S. rather than just the OPT period. Further research is needed to determine which variables are appropriate for the OPT experience and which relate to the entire student experience.

Conclusion

Optional Practical Training (OPT) is a highly valued and highly underutilized program designed to offer international students an opportunity to work in the U.S. and train in their field of study. Symbolic Interactionism and, more specifically, Narrative Inquiry provided a design for analyzing the stories provided by the participants.

Participants' narratives were obtained through personal, recorded interviews. Analysis of the words the participants chose (symbols) to describe their experiences help establish a summative narrative that explained the experiences of students with manufacturing engineering backgrounds graduating from U.S. universities and gaining OPT employment in related fields (Zeegers & Barron, 2015).

The entire F-1 student experience is heavily regulated by complex policies. All aspects of students' studies and careers are influenced and restrained by these policies. Errors or failures in compliance result in termination of status. During OPT and the STEM extension these workers are still students, meaning the university's responsibilities to the student continue long after graduation. The employers could partner with the universities to ensure the regulation process goes smoothly. OPT experiences are maximized when universities, students, and employers are well-educated on the regulations and work together as a system. All parties benefit.

Four themes were identified in the narratives. These themes were inextricable to the premise that OPT is an amazing opportunity. The first theme is viewing the OPT experience as a system including the university, USCIS, and the employer and a need to improve this system. Secondly, subjects demonstrated an acute reluctance to disclose information, an important point to keep in mind when conducting future research. The third theme is the desirability of sustained professional development. This theme was expressed through descriptions of actions and as advice for future OPT workers. Finally, subjects identified the uncertainty of new experiences as a bigger challenge than the

reality of the experience. Efforts to remove barriers for these workers should include the time leading up to the action and address uncertainty.

This dissertation provided rich data pertaining to the experiences of OPT workers in manufacturing engineering fields, a population without significant relevant literature. Each narrative in Results I stands alone as an analysis of the data that each subject wants to project to the world. A qualitative, open-ended approach to the study allows their individual perceptions to come through. The subjects showed the OPT experience was unique to the individual. The individual experience was not sacrificed for the sake of data aggregation, and for good reason. Despite significant experience working with and studying the setting, actors, and actions depicted in this dissertation, I still did not ask the right questions leading into this research. This methodology allowed the subject's narratives to determine which research questions were relevant, rather than the questions determining which experiences were important. This approach necessitated the use of both deductive and inductive coding for the analyses in Results II. Deductive coding alone led to over half the described experiences falling into an 'other' category. The 'other' category was not simply the equivalent of a research data junk drawer. Rather, it was a symptom of flawed categories in the deductive coding. Inductively coding the 'other' category was an adjustment to counter the flawed categories. Inductively coding the themes also alleviated the influence of preconceived research objectives.

The methodology and method for this dissertation were appropriate considering the dearth of research into the population. The goal was to share the stories of three

subjects and start a conversation leading to further studies. As qualitative, mixed method, and quantitative studies are added to the body of knowledge, the students, universities, regulators, and employers will be better equipped to maximize this amazing OPT opportunity.

REFERENCES

- Allen, M. (2017). *The sage encyclopedia of communication research methods* (Vols. 1-4). Thousand Oaks, CA: SAGE Publications, Inc. doi: 10.4135/9781483381411
- American Society for Engineering Education. (2021). Current status of the U.S. engineering and computing workforce, 2019. Retrieved from <https://ira.asee.org/national-benchmark-reports/workforce2019/>
- Amuedo-Dorantes, C., Furtado, D., & Xu, H. (2019). OPT policy changes and foreign born STEM talent in the U.S. *Labour Economics*, 61. <https://doi.org/10.1016/j.labeco.2019.101752>
- Anderson C. (2010). Presenting and evaluating qualitative research. *American Journal of Pharmaceutical Education*, 74(8), 141. <https://doi.org/10.5688/aj7408141>
- Archibald, M.M., Ambagtsheer, R. C., Casey, M. G., & Lawless, M. (2019). Using Zoom videoconferencing for qualitative data collection: Perceptions and experiences of researchers and participants. *International Journal of Qualitative Methods*, 18. <https://doi.org/10.1177/1609406919874596>
- Banerjee, P. (2012). *Constructing dependence: Visa regimes and gendered migration in families of Indian professional workers*. ProQuest Dissertations Publishing.
- Banerjee, P. (2010). Transnational subcontracting, Indian IT workers, and the U.S. visa system. *Women's Studies Quarterly*, 38(1), 89-110. doi:<http://dx.doi.org/10.1353/wsqa.0.0213>

- Bell, E. E. (2018). *A qualitative Narrative Inquiry study investigating the life experiences of identified females in their efforts to participate in technology careers when America needs more technology workers and technology leaders*. ProQuest Dissertations Publishing.
- Benitez, M. (2021). *Culture negotiation: Investigating international students during their OPT experiences*. ProQuest Dissertations Publishing.
- Blumer, J. (1969). *Symbolic interactionism: Perspective and method*. Englewood Cliffs, NJ: Prentice-Hall.
- Bound, J., Demirci, M., Khanna, G., & Turner, S. (2015). Finishing degrees and finding jobs: U.S. higher education and the flow of foreign IT workers. *NBER Innovation Policy & the Economy (University of Chicago Press)*, 15(1), 27–72. <https://doi-org.cyrano.ucmo.edu/10.1086/680059>
- Bordoloi, S. D. (2015). “I Am Standing Still”: The impact of immigration regulations on the career aspirations of wives of international students in the USA. *Journal of International Migration and Integration*, 16(3), 607–624. <https://doi.org/10.1007/s12134-014-0354-4>
- Braekman, E., Charafeddine, R., Demarest, S., Drieskens, S., Berete, F., Gisle, L., Van der Heyden, J., & Van Hal, G. (2020). Comparing web-based versus face-to-face and paper-and-pencil questionnaire data collected through two Belgian health surveys. *International Journal of Public Health*, 65(1), 5–16. <https://doi.org/10.1007/s00038-019-01327-9>
- Bruner, J. (1987). *Actual minds, possible worlds*. Cambridge, MA: Harvard University Press.
- Bruner, J. (1991). The narrative construction of reality. *Critical Inquiry*, 18, 1-21.

- Chapman, E., Sisk, F., Schatten, J., & Miles, E. (2018). Human resource development and human resource management levers for sustained competitive advantage: Combining isomorphism and differentiation. *Journal of Management & Organization, 24*(4), 533– 550. <https://doi.org/10.1017/jmo.2016.37>
- Chavajay, P. (2013). Perceived social support among international students at a U.S. university. *Psychological Reports, 112*(2), 667-677.
- Church, T., Katigbak, M. S., Ibáñez-Reyes, J., de Jesús Vargas-Flores, J., Curtis, G. J., Tanaka-Matsumi, J., Cabrera, H. F., Mastor, K. A., Zhang, H., Shen, J., Locke, K. D., Alvarez, J. M., Ching, C. M., Ortiz, F. A., & Simon, J.-Y. R. (2014). Relating self-concept consistency to hedonic and eudaimonic well-being in eight cultures. *Journal of Cross-Cultural Psychology, 45*(5), 695–712. <https://doi.org/10.1177/0022022114527347>
- Clandinin, D. J., & Connelly, F. M. (2000). *Narrative inquiry: Experience and story in qualitative research*. San Francisco: Jossey-Bass.
- Clandinin, D.J., Pushor, D., & Orr, A. M. (2007). Navigating Sites for Narrative Inquiry. *Journal of Teacher Education, 58*(1), 21–35. <https://doi.org/10.1177/0022487106296218>
- Columbia University. (2022). *Travel during F-1 OPT*. <https://isso.columbia.edu/content/travel-during-f-1-opt>
- Connelly, F. M., & Clandinin, D. J. (2006). Narrative inquiry. In J. L. Green, G. Camilli, & P. Elmore (Eds.), *Handbook of complementary methods in education research* (3rd ed., pp. 477–487). Mahwah, NJ: Lawrence Erlbaum.
- Connelly, F.M., & Clandinin, D. J. (1990). Stories of experience and narrative inquiry. *Educational Researcher, 19*(5), 2–14. <https://doi.org/10.2307/1176100>
- Creswell, J. W. (2007). *Qualitative inquiry & research design: Choosing among five approaches*. Thousand Oaks: Sage Publications.

- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Thousand Oaks, California: SAGE Publications.
- Degutis, M., Urbonavicius, S., Zimaitis, I., Škare, V., & Laurutyte, D. (2020). Willingness to disclose personal information: How to measure it?. *Engineering Economics*, 31(4), 487-494. 10.5755/j01.ee.31.4.25168.
- Diener, E., Oishi, S., & Lucas, R. E. (2003). Personality, culture, and subjective well-being: Emotional and cognitive evaluations of life. *Annual Review of Psychology*, 54, 403–425. <https://doi.org/10.1146/annurev.psych.54.101601.145056>
- Demirci, M. (2019). Transition of international science, technology, engineering, and mathematics students to the U.S. labor market: The role of visa policy. *Economic Inquiry*, 57(3), 1367–1391. <https://doi.org/10.1111/ecin.12795>
- Deschacht, N. & Maes, B. (2017). Cross-cultural differences in self-promotion: A study of self-citations in management journals. *Journal of Occupational and Organizational Psychology*, 90(1), 77–94. <https://doi.org/10.1111/joop.12162>
- Dewey, J. (1938). *Experience and education*. New York, NY: Collier Books.
- Di Fabio, A., & Palazzeschi, L. (2015). Hedonic and eudaimonic well-being: The role of resilience beyond fluid intelligence and personality traits. *Frontiers in psychology*, 6, 1367. <https://doi.org/10.3389/fpsyg.2015.01367>
- Fass-Holmes. (2016). International undergraduates' retention, graduation, and time to degree. *Journal of International Students*, 6(4), 933–955. <https://doi.org/10.32674/jis.v6i4.327>
- Featherson, M. P. (2021). *The automated enterprise: A narrative inquiry exploring worker perceptions of robotic process automation (RPA) in a global life sciences organization*. ProQuest Dissertations Publishing.

- Firestone, B. L. (2012). *Engineers' perceptions of diversity and the learning environment at work: A mixed methods study*. ProQuest Dissertations Publishing.
- Fisher, A. J., Medaglia, J. D., & Jeronimus, B. F. (2018). Lack of group-to-individual generalizability is a threat to human subjects research. *Proceedings of the National Academy of Sciences - PNAS*, *115*(27), E6106–E6115.
<https://doi.org/10.1073/pnas.1711978115>
- Gilley, J.W., & Maycunich, A. (2000). *Organizational learning, performance, and change: An introduction to strategic human resource development*. Perseus Publishing.
- Glaser, B., & Strauss, A. (1967). *The discovery of grounded theory*. New York, NY: Aldine
- Goodson, I. (1992). *Studying teachers' lives*. New York: Columbia University, Teachers College Press.
- Goulding, C. (2005). Grounded theory, ethnography and phenomenology: A comparative analysis of three qualitative strategies for marketing research. *European Journal of Marketing*, *39*(3-4), 294–308. <https://doi.org/10.1108/03090560510581782>
- Gray, L. M., Wong-Wylie, G., Rempel, G. R., & Cook, K. (2020). Expanding qualitative research interviewing strategies: Zoom video communications. *Qualitative Report*, *25*(5), 1292–1301.
- Gregory, E., & Rutledge, P. (2016). *Exploring positive psychology: The science of happiness and well-being*. Retrieved from <http://publisher.abc-clio.com/9781610699402>
- Grimm, A.T., (2021). *International graduates and Optional Practical Training: A phenomenological study of lived mobilities*. ProQuest Dissertations Publishing.

- Grimm, A.T. (2019). Studying to stay: Understanding graduate visa policy content and context in the United States and Australia. *International Migration*, 57(5), 235–251.
<https://doi.org/10.1111/imig.12561>
- Habli, F. (2020). *Exploring the experiences of international students and their coping strategies through the lense of Schlossberg's Transition Theory when moving through Optional Practical Training*. ProQuest Dissertations Publishing.
- Hofstede, G. (2011). Dimensionalizing cultures: The Hofstede Model in Context. *Online Readings in Psychology and Culture*, 2(1). <https://doi.org/10.9707/2307-0919.1014>
- Holmes, A. (2020). Researcher positionality - A consideration of its influence and place in qualitative research - A new researcher guide. *Shanlax International Journal of Education*, 8(4), 1-10.
- Homeland Security. (December 28, 2017). Nonimmigrant classes of admission. Retrieved from <https://www.dhs.gov/immigration-statistics/nonimmigrant/NonimmigrantCOA>
- Hong, Q. N., Pluye, P., Bujold, M., & Wassef, M. (2017). Convergent and sequential synthesis designs: Implications for conducting and reporting systematic reviews of qualitative and quantitative evidence. *Systematic Reviews*, 6(1), 61–61. <https://doi.org/10.1186/s13643-017-0454-2>
- Huff, J. L., Zoltowski, C. B., & Oakes, W. C. (2016). Preparing engineers for the workplace through service learning: Perceptions of EPICS alumni. *Journal of Engineering Education*, 105(1), 43–69.
- Jackson, M., Ray, S., & Bybell, D. (2013). International students in the U.S.: Social and psychological adjustment. *Journal of International Students*, 3(1), 17-28.

- Josselson, R., & Hammack, P. L. (2021). *Essentials of narrative analysis*. American Psychological Association.
- Kajonius, P., Mac Giolla, E., & Tran, U. S. (2017). Personality traits across countries: Support for similarities rather than differences. *PloS One*, *12*(6), e0179646–e0179646. <https://doi.org/10.1371/journal.pone.0179646>
- Kermode, F. (1967). *The sense of an ending*. New York, NY: Oxford University Press.
- Kim, J. (2016). *Understanding narrative inquiry*. SAGE Publications, Inc.
- Kim, J. Y., & Nam, S. H. (1998). The concept and dynamics of face: Implications for organizational behavior in Asia. *Organization Science*, *9*(4), 522–534.
- Kleinman, A. (1988). *The illness narratives: Suffering, healing, and the human condition*. New York, NY: Basic Books.
- Kuo, Y. (2011). Language challenges faced by international graduate students in the United States. *Journal of International Students*, *1*(2), 38–42.
- Labov, W., & Waletzky, J. (1967). Narrative analysis: Oral versions of personal experience. *Journal of Narrative and Life History*, *7*, 3–38.
- Lal, S., Suto, M., & Ungar, M. (2015). Examining the potential of combining the methods of Grounded Theory and Narrative Inquiry: A comparative analysis. *Qualitative Report*. *17*(21). 1-22. <https://doi.org/10.46743/2160-3715/2012.1767>
- Lavrakas, P. J. (2008). *Encyclopedia of survey research methods* (Vols. 1-0). Thousand Oaks, CA: Sage Publications, Inc. doi: 10.4135/9781412963947
- Leong, P. (2015). Coming to America: Assessing patterns of acculturation, friendship formation, and the academic experiences of international students at a U.S. college. *Journal of International Students*, *5*(4), 459-474.

- Lin, M. (2012). Students of different minds: Bridging the gaps of international students studying in the U.S. *U.S. - China Education Review*, *A3*, 333-344.
- Lo, L., Li, W., & Yu, W. (2019). Highly-skilled migration from China and India to Canada and the United States. *International Migration*, *57*(3), 317–333. <https://doi-org.cyrano.ucmo.edu/10.1111/imig.12388>
- Lowell, B. L., & Martin, P. (2012). Managing the dynamic science and engineering labor market in the United States. *The International Migration Review*, *46*(4), 1005–1012. <https://doi.org/10.1111/imre.12008>
- Masadeh, M. (2012). Training, education, development and learning: What is the difference? *European Scientific Journal*, *8*(10). <https://doi.org/10.19044/esj.2012.v8n10p%p>
- McConnell-Henry, T., James, A., Chapman, Y., & Francis, K. (2009). Researching with people you know: Issues in interviewing. *Contemporary Nurse*, *34*(1), 2–9.
- McGill, J. (2013). International student migration: Outcomes and implications. *Journal of International Students*, *3*(2), 167-181.
- McKibben, W. B., Cade, R., Purgason, L. L., & Wahesh, E. (2020). How to Conduct a Deductive Content Analysis in Counseling Research. *Counseling Outcome Research and Evaluation*, 1–13. <https://doi.org/10.1080/21501378.2020.1846992>
- McLean, G. N. (1998). HRD: A three-legged stool, an octopus, or a centipede? *Human Resource Development International*, *1*(4), 375–377. <https://doi.org/10.1080/13678869800000048>
- Monahan, J. L. (2018). *Starting a career in the U.S.: International student perceptions of the Optional Practical Training experience*. ProQuest Dissertations Publishing.
- Moen, T. (2006). Reflections on the narrative research approach. *International Journal of Qualitative Methods*, *5*(4), 56–69. <https://doi.org/10.1177/160940690600500405>

- Moore, H. L. (1897). Cours d'Économie Politique. By Vilfredo Pareto, Professeur à l'Université de Lausanne. Vol. I. Pp. 430. 1896. Vol. II. Pp. 426. 1897. Lausanne: F. Rouge. *The Annals of the American Academy of Political and Social Science*, 9(3), 128–131.
<https://doi.org/10.1177/000271629700900314>
- Morrow. (2005). Quality and trustworthiness in qualitative research in counseling psychology. *Journal of Counseling Psychology*, 52(2), 250–260. <https://doi.org/10.1037/0022-0167.52.2.250>
- Moulik, S. R., & Mazumdar, S. (2012). Expatriate satisfaction in international assignments: perspectives from Indian IT professionals working in the U.S. *International Journal of Human Resource Studies*, 2(3), 59–. <https://doi.org/10.5296/ijhrs.v2i3.2141>
- Nadler, L. (1979). *Developing human resources*. Learning Concepts.
- No, Y., & Walsh, J. P. (2010). The importance of foreign-born talent for US innovation: A survey suggests that foreign-born scientists and engineers play a major role in scientific and innovation output in the United States. *Nature Biotechnology*, 28(3), 289.
- Nitzschke, P. (2017). Building bridges: Why expanding optional practical training is a valid exercise of agency authority and how it helps F-1 students transition to H-1B worker status. *The American University Law Review*, 66(2), 593–633.
- National Center for Education Statistics (NCES), (2020). Detail for CIP code 14.3601. Retrieved from <https://nces.ed.gov/ipeds/cipcode/cipdetail.aspx?y=56&cipid=89641>
- Opendakker. (2006). Advantages and disadvantages of four interview techniques in qualitative research. *Forum, Qualitative Social Research*, 7(4), 1-14.
- O*NET. (November 16, 2021). Summary Report for: 17-2112.03 - Manufacturing Engineers. Retrieved from <https://www.onetonline.org/link/summary/17-2112.03?redir=17-2199.04>

- Park, H., & Lewis, D. (2018). The negative health effects of external whistleblowing: A study of some key factors. *The Social Science Journal (Fort Collins)*, 55(4), 387–395.
<https://doi.org/10.1016/j.soscij.2018.04.002>
- Patton, Q. M. (1990). *Qualitative evaluation and research methods* (2nd ed.). Thousand Oaks, CA: Sage.
- Pepper, C., & Wildy, H. (2009). Using narratives as a research strategy. *Qualitative Research Journal*, 9(2), 18-26. <http://dx.doi.org.cyrano.ucmo.edu:2048/10.3316/QRJ0902018>
- Peri, G., Shih, K., & Sparber, C. (2015). STEM workers, H-1B visas, and productivity in U.S. cities. *Journal of Labor Economics*, 33, S225–S255. <https://doi-org.cyrano.ucmo.edu/10.1086/679061>
- Pitre, S. (2017). *International students career development: Acculturative stress and career outcomes*. ProQuest Dissertations Publishing.
- Polkinghorne, D. E. (1988). *Narrative knowing and the human sciences*. Albany, NY: State University of New York Press.
- Rajapaska, S., & Dundes, L. (2002). It's a long way home: International student adjustment to living in the United States. *Journal of College Student Retention*, 4(1), 15-28.
- Ramsay, S., Barker, M., & Jones, E. (1999). Academic adjustment and learning processes: A comparison of international and local students in first-year university. *Higher Education Research & Development*, 18(1), 129-144.
- Ravichandran, S., Kretovics, M., Kirby, K., & Ghosh, A. (2017). Strategies to address English language writing challenges faced by international graduate students in the U.S. *Journal of International Students*, 7(3), 764-785.
- Ricoeur, P. (1988). *Time and narrative: Vol. III*. Chicago: University of Chicago Press.

- Rothwell, W. J., Stavros, J. M., & Sullivan, R. L. (2009). *Practicing organization development: A guide for leading change*. Hoboken: John Wiley & Sons.
- Russell, J., Rosenthal, D., & Thomson, G. (2010). The international student experience: Three styles of adaptation. *Higher Education*, 60(2), 235-249.
- Ryff, C. D., & Singer, B. H. (2006). Know thyself and become what you are: A eudaimonic approach to psychological well-being. *Journal of Happiness Studies*, 9(1), 13–39.
<https://doi.org/10.1007/s10902-006-9019-0>
- Sa, C. M., & Sabzalieva, E. (2018). The politics of the great brain race: Public policy and international student recruitment in Australia, Canada, England and the USA. *Higher Education*, 75(2), 231–254. <https://doi.org/10.1007/s10734-017-0133-1>
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill-building approach* (7th ed.). Wiley & Sons.
- Schmidt, A. (2020). Are international students getting a bang for their buck? The relationship between expenditures and international student graduation rates. *Journal of International Students*, 10(3), 646–663. <https://doi.org/10.32674/jis.v10i3.1279>
- Swanson, R. A. (1995). Human resource development: Performance is the key. *Human Resource Development Quarterly*, 6(2), 207–213. <https://doi.org/10.1002/hrdq.3920060208>
- Taborda, E. K. (2020). *Socio-economic well-being of international F-I students living and working in the United States*. ProQuest Dissertations Publishing.
- Thibodeau, P. (2014). Hiring of foreign students without H-1Bs skyrockets. *Computerworld*, 48(6), 2.
- Thomas, S. (2012). Narrative inquiry: Embracing the possibilities. *Qualitative Research Journal*, 12(2), 206–221. <https://doi.org/10.1108/14439881211248356>

- Thomas, S. (2017). The precarious path of student migrants: Education, debt, and transnational migration among Indian youth. *Journal of Ethnic & Migration Studies*, 43(11), 1873–1889.
- Thompson, D. J. (1996). The tape recorder as a mediating factor in research. *Australian Educational Researcher*, 23(3), 1–12.
- UC Berkley. (2022). *Travel and re-entry to the U.S. while on OPT*. <https://internationaloffice.berkeley.edu/students/employment/opt/travel>
- United States Bureau of Labor Statistics. (September, 22, 2020). *Employee tenure in 2020*. Retrieved from <https://www.bls.gov/news.release/pdf/tenure.pdf>
- United States Bureau of Labor Statistics. (September 8, 2021). *Occupational outlook handbook*. Retrieved from <https://www.bls.gov/ooh/architecture-and-engineering/home.htm>
- United States Census Bureau. (October 8, 2021). *About foreign born*. Retrieved from <https://www.census.gov/topics/population/foreign-born/about.html>
- United States Citizenship and Immigration Services (USCIS). (November 2019). *Form I-765 Application for Employment Authorization*. Office of Performance and Quality. C3 Consolidated via SAS. Retrieved from https://www.uscis.gov/sites/default/files/document/data/I-765_Application_for_Employment_FY03-19.pdf
- United States Citizenship and Immigration Services (USCIS). (February 26, 2021a). *Optional Practical Training extension for STEM students (STEM OPT)*. Retrieved from <https://www.uscis.gov/working-in-the-united-states/students-and-exchange-visitors/optional-practical-training-extension-for-stem-students-stem-opt>

- United States Citizenship and Immigration Services (USCIS). (July 29, 2021b). *Optional Practical Training (OPT) for F-1 students*. Retrieved from <https://www.uscis.gov/working-in-the-united-states/students-and-exchange-visitors/optional-practical-training-opt-for-f-1-students>
- United States Citizenship and Immigration Services (USCIS). (November 11, 2021c). *Temporary (Nonimmigrant) Workers*. Retrieved from <https://www.uscis.gov/working-in-the-united-states/temporary-nonimmigrant-workers>
- United States Department of Education, National Center for Education Statistics. (2020). *The condition of education 2020* (NCES 2020-144). Retrieved from <https://nces.ed.gov/pubs2020/2020144.pdf>
- United States Department of Homeland Security. (n.d.). *Students: STEM OPT reporting requirements*. Retrieved from <https://studyinthestates.dhs.gov/stem-opt-hub/students-stem-opt-reporting-requirements>
- United States Department of State. (n.d.). *Student visa*. Retrieved from <https://travel.state.gov/content/travel/en/us-visas/study/student-visa.html>
- United States Immigration and Customs Enforcement (ICE). (November 17, 2021). *SEVP Certified Schools*. Retrieved from <https://studyinthestates.dhs.gov/assets/certified-school-list-11-17-21.pdf>
- United States Immigration and Customs Enforcement (ICE). (2020). *Student and Exchange Visitor Program (SEVP) 2019 SEVIS by the numbers report*. Retrieved from <https://www.ice.gov/doclib/sevis/pdf/sevisBTN2019.pdf>
- United States Immigration and Customs Enforcement (ICE). (May 10, 2016). *Training STEM OPT students*. Retrieved from https://studyinthestates.dhs.gov/assets/stem_opt_chamber_of_commerce_presentation.pdf

- University of Michigan – Dearborn. (2022). *Travel and re-entry to the U.S. while on OPT*.
<https://umdearborn.edu/office-international-affairs/current-international-students/work-international-student/optional-practical-training-opt/travel-and-re-entry-us-while-opt>
- Van Dijk, M. S. (2004). Career development within HRD: Foundation or fad? Proceedings of the Academy of Human Resource Development Conference, USA, 771-778.
- Varma, R. (2021). Dissecting culture at work: Conversation with Indian immigrant scientists & engineers in the U.S. industrial sector. *Technology in Society*, 66, 101654.
<https://doi.org/10.1016/j.techsoc.2021.101654>
- Vijayakumar, P. B., & Cunningham, C. J. L. (2016). Cross-cultural adjustment and expatriation motives among Indian expatriates. *Journal of Global Mobility*, 4(3), 326–344.
<https://doi.org/10.1108/JGM-05-2016-0019>
- Volpone, S. D., Marquardt, D. J., Casper, W. J., & Avery, D. R. (2018). Minimizing cross-cultural maladaptation: How minority status facilitates change in international acculturation. *Journal of Applied Psychology*, 103(3), 249–269.
- Wright, R., Ellis, M., & Townley, M. (2017). The matching of STEM degree holders with STEM occupations in large metropolitan labor markets in the United States. *Economic Geography*, 93(2), 185–201. <https://doi-org.cyrano.ucmo.edu/10.1080/00130095.2016.1220803>
- Xu, W., & Zammit, K. (2020). Applying Thematic Analysis to Education: A Hybrid Approach to Interpreting Data in Practitioner Research. *International Journal of Qualitative Methods*, 19, 1-9. <https://doi.org/10.1177/1609406920918810>
- Zeegers, M., & Barron, D. (2015). *Milestone moments in getting your PhD in qualitative research*. Chandos Publishing.