Summary in English

This dissertation studies the responses of Portuguese polytechnics and Dutch hogescholen to new policy demands. These non-university higher education organizations focus on training professionals through practical learning approaches in close collaboration with regional/local industries and communities. In the past decade, such organizations have been undergoing changes related to their governance and educational provisions. National governments demanded them to focus on a research mandate and innovate educational provisions and training to be more responsive to the needs of local labor markets, industries, and communities. However, there is little research on how these organizations responded to new policy demands in their local contexts or how they contributed to the training of an adequately skilled labor force.

Current research about non-university higher education generally either showcases in-depth single-country specificities of adaptation to new policy demands or provides international comparisons of the size of the sector and national laws and regulations related to the new policy demands. With a focus on non-university higher education organizations in Portugal and the Netherlands, this dissertation aims to provide an in-depth comparative understanding of responses to new policy demands, with the goal of producing broader generalizations relative to the sector. Portugal and the Netherlands are selected as case study countries because both have binary higher education systems with both university and non-university organizations. This accounts for representativeness. At the same time, there are political, economic, and social differences between the countries, as well as differences in how they regulate non-university higher education organizations. Such differences are considered potential explanatory forces for policy outcomes in most higher education literature.

Unlike previous literature, which considers the political, economic, and social environments only as factors affecting organizational responses, this dissertation focuses on the organizational *experience* of conditions in political, economic and social environments in response to the new research policy and the demand for educational innovation. More specifically, it defines political, economic, and social environments as parts of the higher education field that interact and depend upon each other for resources and survival. Fields are characterized by institutional pluralism, while organizations are faced with multiple

institutional prescriptions from political and social institutions, known as field actors. For the most part, the role of the national higher education field has been downplayed or absent from research on organizational responses to new demands and adaptations in higher education. With this in mind, the dissertation undertakes a qualitative comparative analysis, employing several conceptual streams from new institutional theory to explain how experienced conditions in the national higher education field shape non-university higher education organizations' responses to new policy.

The objectives of this dissertation therefore extend beyond in-depth understanding of the responses to new policy, to explain the reasons behind these responses, and (a) specify the role of non-university higher education in providing labor markets with adequately skilled employees, (b) inform policymakers about the characteristics of non-university higher education organizations so they can create effective and diversifying policies in national contexts, (c) enable national policymakers to draw on concrete examples to foster the development of non-university higher education programs, and, finally, (d) contribute to the development of the higher education literature that explores responses to new policy demands and change processes.

First, this study shows that, in each of the two countries, non-university higher education organizations respond differently to new policy demands. This goes against the expectation of convergence and uniformity within European higher education systems targeted by harmonization policies -- such as the Bologna Process -- and by reforms aimed at adjusting national higher education systems to a shared European level with common political agendas and strategies. This research shows that Dutch *hogescholen* have intermediary functions in their higher education fields, where collaboration with local businesses and communities has evolved into partnerships in education that, through research, lead to innovation (Chapter 2). This role of the *hogescholen*, and the nature of their research practices and educational provisions, is unique. The main characteristics of the new research mandate are readily discernable. Research consists of practical problem solving activities, driven by local industry and community, and is multiparty, multidimensional, and hybrid (Chapters 4 and 5). At the same time, Dutch *hogescholen* struggle to attain scientific legitimacy because their research is dominantly practice based and with problem solving outputs. This legitimacy seems critical due to increasing political pressure to collaborate

with universities. Therefore, Dutch *hogescholen* have begun hiring more staff with PhDs, as well as encouraging current staff to pursue PhDs and introducing courses on research methodologies in order to equip students and researchers with greater scientific rigor in their research practices.

Portuguese polytechnics attempt to function as universities, while at the same time incorporating diverse research practices in a way that provides innovative educational provisions (Chapters 3 and 6). All polytechnics attempt to adopt Mode 1 knowledge production, that in which they believe universities engage. This term is used to characterize research driven by scholarly questions, and the extensive knowledge found in their respective disciplines. It refers to fundamental scientific research aimed at advancing a disciplinary field of science. At the same time, some polytechnics also adopt Mode 2 knowledge production through projects funded in collaboration with universities and external stakeholders. This term is used to characterize context driven research, where questions arise from the perception of problems in the industry. The aim of such research is to find generalizable solutions for an industrial sector rather than solve a specific company problem. Mode 2 usually leads to more generalizable knowledge production that aims to shift, redefine, and innovate an industry, but not generally to concrete outputs that solve problems for industries or societies. A few polytechnics that I analyzed also advanced Mode 3 knowledge production (Chapter 2). This term is gaining recent popularity, and scholars try to differentiate it from Mode 2 by arguing that research questions are always defined by local companies or local context, and that concrete, applicable outputs are always accomplished. Definition of Mode 3 type of research has also been expanded through the findings of this dissertation and essentially represents practice based and short term problem oriented research which serves educational purposes (upgrading students' and teachers' skills and knowledge of the profession and dynamics in the work environment), improves company products or designs solutions and contributes to local and regional innovation in professions. Different types of research result from the absence of a coherent research strategy for polytechnic education at national field level. The arrangement of research seems, instead, to be left to organizational discretion. This leads to a variation in research activities and practice from one polytechnic to another without the possibility of synthesizing a coherent definition of research and its characteristics for the sector. At the

same time, it suggests that polytechnics in Portugal are flexible and strategic, thereby voiding organizational homogeneity.

Second, the study shows that these different responses to policy demands are a result of organizational and individual *experiences* of conditions in the national higher education field. Based on theoretical insight from new institutional theory, this dissertation's findings show that the organizational experience of conditions within the field of national higher education shapes the organizational understanding of new demands. Organizational action in response to new demands is therefore not defined autonomously without influence from the field of higher education. Organizations which experience stability in their field of higher education, such as the Dutch *hogescholen*, are characterized by institutionalized organizational identity, or central, enduring and distinctive features defined at the field level and collectively understood by organizational members. They relied on these in order to perform research (Chapter 5) and unintentional decoupling in response to demands for innovation in education (Chapter 4). On the other hand, however, Portuguese polytechnics, which experience conditions in their field as complex, and therefore uncertain, are characterized by identity ambiguity; they strategized in response to the new research mandate (Chapter 2 and Chapter 6). This means that the organizational experience of complexity regarding conditions in the field of national higher education influences responses to new policy demands as it also shapes the organizational understanding of self.

Additionally, this study reveals that more attention should be paid to micro elements within organizations, including individuals with specific skills and social networks as they have an opportunity to mediate change and respond to new demands in innovative ways (Chapter 3). These individuals experienced their field in specific ways which influenced their strategic responses and eventually had an impact on organizations. In fact, they perceived the new policy demand as incompatible and incongruent with the cognitive norms and values that guided their behavior, leading them to experience field complexity and contributing to innovative responses. This finding highlights micro "macro" (or field) incongruences which contribute to an experience of complexity.

The results of this dissertation have significant implications for national and European policymaking initiatives. They suggest that policymakers should consider promoting coherent policy frameworks when implementing a new demand and tailored to national and

local contexts, while promoting European collaborative trends within the non-university higher education sector.

Higher education managers, on the other hand, should be more attentive to organizational processes and in particular the type of skills, knowledge and abilities of their academics in their organization if they want to advance certain innovative undertakings relative to change. Overall, the dissertation offers practical advice to policymakers and academic managers in higher education organizations, and especially the non-university higher education sector as it undergoes policy change. With this said, the study informs the field of higher education policymaking and strategic change management in higher education.