

# Enhancing Faculty Member Engagement in the Internationalization of Education

*A Case study at the Faculty of  
Mathematics and Natural Sciences at  
the University of Oslo*

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Master of Philosophy in Higher Education  
Department of Education, Faculty of Educational Sciences

UNIVERSITY OF OSLO

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## **Abstract**

Internationalization has become an essential component and one of the strategically most important concepts in higher education today. In the era of globalization and its impacts on higher education, internationalization is today implemented in all sectors of academic life. The strategic importance of internationalization for higher education has put the critical role of faculty members in the center of attention. The engagement of faculty members in the internationalization process has been widely identified as key approach for the advancement and success of any international activity at universities and colleges. Despite the critical role faculty members play in these processes only little is known how faculty member engagement is facilitated and enhanced.

The aim of this study is to explore on the case of the Faculty of Mathematics and Natural Sciences at the University of Oslo, how incentives, support, and motivations serve as a catalyst for faculty member engagement in the internationalization of education. For this purpose a new analytical framework of factors facilitating faculty member engagement in internationalization was developed. Applying a qualitative research approach, data was collected through semi-structured interviews with six key faculty members. The data were used to conduct a contextual exploration of the faculty members' perceptions of the individual incentives, support, and motivations and to analyze how these factors enhance the faculty members' engagement.

The study reveals that the faculty members' intrinsic motivation is the strongest driving force for the enhancement of faculty member engagement in the internationalization of education and that the faculty members' international imprint is an important contributing factor shaping this intrinsic motivation. Other external factors such as investments are not decisive and considered mainly as intensifying stimuli and supporting structure to increase the extent and impact of international activities.



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# **Chapter I – Introduction**

This thesis examines the process of internationalization of education at higher education institutions and the critical role of faculty member engagement in this regard. The study aims to explore how incentives, support, and motivations serve as a catalyst for faculty member engagement by examining how faculty members perceive these individual factors and by analyzing how the factors actually enhance the faculty members' engagement. The following chapter presents an introduction into this topic and the focus of the study. After the presentation of the background of the research topic in the first section, the second section states the research problem this study aims to explore. The third section presents the aims of the study and the research questions that will be addressed. The fourth section introduces in detail the context and focus the study is imbedded. The chapter rounds off with an elaboration of the significance of the research topic.

## **1.1 Background to the Study**

In the last three decades internationalization has become one of the strategically most important concepts in higher education worldwide (Childress, 2010; Knight, 2012). Through globalization and its pressuring forces, such as the porousness of national borders, the increase of international mobility of labor, capital, trade, and technology, the simplified world-wide communication, the emphasis on the market economy and the emergence of the knowledge economy, internationalization has become a transformative process reshaping higher educational institutions to adapt them to the requirements of a globalized society. Today, internationalization is implemented in all sectors of academic life (Altbach, 2004; Altbach & Knight, 2007).

The implementation of internationalization in higher education institutions comes in many different forms and shapes. For some, internationalization of higher education only means a series of international activities such as the academic mobility of students and academics and other forms of cross-border cooperation in teaching, research, and service. These activities are usually the most visible ones and are often seen and used as the main indicators to measure an institution's or a faculty's level of internationalization (Knight, 2012). For others, just as important as the traditional cross-border education but less visible, internationalization of higher education is conceptualized as activities aiming to internationalize the curriculum and study programs by integrating an international and intercultural dimension and a global

perspective as well as foreign-language elements into the content and the teaching and learning methods (Bond, 2003; Green & Olsen, 2003; Knight, 2012). Others again, see in internationalization of higher education the commercialization of cross-border education through the delivery of education via branch or franchise campuses abroad, via distance teaching tools or the implementation of international development projects (Altbach & Knight, 2007; Childress, 2010; Knight, 2012).

The strategic importance of internationalization for higher education and the numerous areas where it is implemented has put the critical role of faculty members to the center of attention. Faculties and their members have been widely identified as being central for the internationalization of higher education (Childress, 2009b, 2010; Clifford, 2009; Friesen, 2012; Green & Olsen, 2003; Leask & Beelen, 2009; Li & Tu, 2015; Stohl, 2007). The engagement of faculty members is considered as the “cornerstone” in developing internationalization at higher education institutions (Green & Olsen, 2003, p. 78). To a great extent, it is the faculty members who are putting internationalization strategies and goals into practice and filling internationalization activities ‘with life’. Faculty members are shaping future generations via cross-cultural teaching and curriculum, by initiating international programs, and by promoting institutions’ international competition (Li & Tu, 2015). While different approaches to internationalization can be identified in the relevant literature, scholars agree that the success of any internationalization activity stands and falls with the engagement of the faculty members (Childress, 2010; Stohl, 2007). Simultaneously, scholars have observed difficulties among higher education institutions in engaging a considerable number of faculty members in internationalization processes and activities.

## **1.2 Statement of the Problem**

While higher education institutions have developed and formulated detailed internationalization plans and goals, often a significant gap exists between the development of these plans and goals and the development of an institution-wide involvement of faculty members in their operationalization (Childress, 2010). Higher education institutions struggle to move internationalization out of their international offices and to engrain it into the faculties’ agendas, where the academic teaching and learning process often still is considered to be separate from the development of an intercultural and international awareness of the student body (Brewer & Leask, 2012). Studies show, that for faculty members the intercultural and international awareness of their students as well as international cooperation with other higher

education institutions in teaching and research can play a subordinated role, or the faculties do not have qualified staff or relevant experience in internationalization issues (Clifford, 2009; Green & Olsen, 2003). The enhancement of faculty member engagement in internationalization is, therefore, considered a key approach to increase an institution's internationalization process.

While scholars have explored and identified numerous institutional and individual barriers impeding faculty member engagement in the international dimension of higher education (Bond, 2003; Ellingboe, 1998; Green & Olsen, 2003; Stohl, 2007), only a minor number of studies have attempted to explore how faculty member engagement in internationalization is facilitated and enhanced (Li & Tu, 2015). Despite the critical role faculty members play in the internationalization process only little is known regarding how the faculty members perceive individual incentives, support, and motivations aiming to enhance their engagement, how effective these incentives actually are, and how strong their impact is compared to each other. Our understanding in this area needs to increase if we want to extend our knowledge of how individual faculty members behave in higher education institutions and if those institutions successfully want to enhance faculty member engagement in internationalization by adapting their policies and actions according to the faculty members' needs and requirements.

### **1.3 Aims of the Study and Research Questions**

The aim of this study is to explore how incentives, support, and motivations serve as a catalyst for faculty member engagement in the internationalization of education. Using a contextual research approach (Ritchie, Lewis, McNaughton Nicholls, & Ormston, 2014) to examine the faculty members' perspectives the author seeks to develop an understanding of how the faculty members perceive the individual incentives, support and motivations, and also how these factors actually enhance faculty member engagement. As such, this study will answer the following research questions:

How do the faculty members perceive the individual incentives, support, and motivations facilitating faculty member engagement in the internationalization of education?

How do these incentives, support, and motivations enhance faculty member engagement in the internationalization of education?

For the purpose of this study incentives, support, and motivations are defined as all external stimuli such as financial and non-financial compensations, administrative and advisory support, encouragement, and other organizational efforts provided by the university or external entities as well as individual intrinsic motivations<sup>1</sup> facilitating the engagement of faculty members in international education activities. Furthermore, the term ‘faculty member’ is defined as all academic staff employed at a faculty and assigned with and involved in teaching and learning activities.

#### **1.4 Context and Focus of the Study**

While internationalization concerns all three functions of higher education institutions, i.e. education, research, and service (Trow, 1970), this study will only focus on the internationalization of education. Education is in its origin rather nationally orientated with only few disciplines actually requiring international perspectives for their meaning. However, in the context of an increasing internationalization of higher education all disciplines experience increased pressure to internationalize their education and curriculum. Due to the originally national orientation of education and the simultaneous pressure to internationalize, the national-international delineation of this function is clearer. Furthermore, in recent years the pressure to internationalize has led to the development of numerous international education activities requiring faculty member engagement, making the internationalization of education an interesting object to study. International educational activities at higher education institutions are usually very well determined and formalized in study programs and international agreements with partner institutions. Many of these activities are linked to financial support such as scholarships or funding for the program administration and therefore often require detailed monitoring and evaluation. Furthermore, the number of international students, the number of exchange mobilities, the amount of English-taught courses, and international degree programs etc. provide important figures measuring an institution’s level of internationalization and are, therefore, evaluated and documented on a regular basis. Many higher education institutions have developed comprehensive mechanisms and employ administrative staff on institutional and faculty level to keep track and measure these international education activities.

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<sup>1</sup> Intrinsic motivation describes a behavior or engagement in an activity that is driven by one’s inherent interests, enjoyment, and personal rewards rather than external incentives and rewards (Ryan & Deci, 2000).



Research is in contrast by nature more international, making the decisions to internationalize more difficult to entangle. Furthermore, the internationalization of research is often based on uncoupled contacts between individual scholars and does not follow specific requirements or formalization, making these activities more difficult and complex to define and measure. While all research activities in Norway should be centrally registered in the *Current Research Information System in Norway* (CRISStin), not every participation in an international conference or the interexchange with international scholars is documented. Only if the international collaboration among scholars leads to an output such as publications or the funding of a collaborative research project, these activities are usually centrally documented. Due to the increasing pressure to internationalize education, accompanied by numerous international activities on educational level and the easy accessibility of rich data, the focus of this study will only be on the internationalization of education and not on research.

The Department of Physics and the Department of Biosciences of the Faculty of Mathematics and Natural Sciences at the University of Oslo will be the cases in this study. The case selection process will be explained in detail in the methodology chapter (see section 4.1.3). The faculty and the two departments have been selected since several studies exploring disciplinary differences in faculty member engagement in internationalization show that openness to, and involvement in, internationalization varies across the disciplines (Bond, Quian, & Huang, 2003; Clifford, 2009; Ellingboe, 1998; Schwietz, 2006; Stohl, 2007). Research indicates that especially the Science, Technology, Engineering and Mathematics (STEM) disciplines are known to be more resistant to internationalization than other disciplines. In a comprehensive study investigating faculty members' attitudes, beliefs, and involvement in internationalization at nine public universities in the United States, Schwietz (2006) discovered that from the ten different disciplines examined, faculty members from the physical, mathematical, and engineering sciences showed the least favorable attitudes and beliefs towards the internationalization of research, teaching, and the curriculum. Furthermore, faculty members from these disciplines showed a statistically significant lower involvement in internationalization than faculty members from all other disciplines examined. Schwietz attributes these findings to the requirements of particular disciplines for specific materials, data, and educational experiences and perspective which can only be found abroad and which are vital to make the field meaningful. Furthermore, she considers professional benefits and costs related to internationalization such as promotion and tenure as a factor, by pointing to the

disciplinary differences in what is valued as professional achievements and academically useful. Schwietz' findings are supported by Clifford (2009), who found, in her study exploring disciplinary understandings of the concept of internationalization of the curriculum, that especially academics from the 'hard pure' disciplines (Becher, 1989) show a stronger resistance towards internationalization than their colleagues from 'softer' or more 'applied' disciplines. According to Clifford, the resistance derives from the belief of the 'hard pure' disciplines that the natural sciences follow value-free universal principles and by that mean are already international. In contrast, the 'softer' or more 'applied' disciplines recognize the importance of the contextualization of knowledge and the need to consider the future multi-cultural work environments of their students. In addition to the posed research questions, the author seeks by analyzing a hard-pure (Physics) and a hard-applied (Biosciences) discipline to develop an understanding of the faculty members' attitudes and beliefs towards the internationalization of education and whether they are in accordance with Schwietz' and Clifford's findings.

## **1.5 Significance of the Study**

Faculty members present the most important stakeholder in the internationalization process of higher education institutions (Childress, 2009b, 2010; Clifford, 2009; Friesen, 2012; Green & Olsen, 2003; Leask & Beelen, 2009; Li & Tu, 2015; Stohl, 2007). The study will provide useful insights on how faculty members perceive individual incentives, support, and motivations facilitating their engagement in the internationalization of education. Furthermore, the study will contribute to the knowledge of how these factors enhance the faculty members' engagement by including literature from management, psychology, and organizational behavior disciplines where the concept of employee engagement originally was developed. Moreover, the study will deepen the understanding of higher education institutions to what extent their organizational efforts actually can influence and enhance faculty member engagement. Based on the findings higher education institutions can adapt their institutional efforts and actions according to the faculty members' needs and requirements and with regards to their organizational policies and procedures particularly their recruitment and promotional policy.

## **Chapter II – Literature Review**

This chapter will provide a review of the relevant literature regarding the concept of internationalization, the concepts of staff engagement, and the engagement of faculty members in internationalization, all three of particular relevance to this study. The aim of the literature review is to place the study into the body of relevant research that already has been conducted, to provide additional background and context for the study, and to clarify concepts and terms that will be used throughout the study. Furthermore, a good understanding and clear definition of the concepts with relevance to this study is essential for the development of an analytical framework aiming to gather and analyze the data.

The chapter is comprised of three main sections with several subsections each. The first section introduces the concept of internationalization by looking into its historical development and by providing a conceptualization and definition of the term which will be further used in this study. Furthermore, rationales driving the different stakeholders in higher education to engage in internationalization will be explored. The second section examines the concept of staff engagement by looking into the origins of the concept of employee engagement developed in the generic management, psychology, and organizational behavior literature and by reviewing the relevant literature on faculty member engagement in the higher education context. This review is followed by an intensive analysis of the literature on faculty member engagement in internationalization and an exploration of its potential, barriers impeding and factors facilitating it.

### **2.1 Conceptualizing Internationalization of Higher Education**

#### **2.1.1 Historical Developments and Main Characteristics**

Internationalization is one of the most important concepts shaping higher education for the last three decades (Knight, 2012). From their beginning universities always have been international institutions. Already in medieval times students and academics moved between universities and beyond national borders in the search of knowledge, new ideas and different cultural perspectives (Altbach, 2004; de Wit, 2000; Leask & Beelen, 2009). However, the actual term ‘internationalization’ was introduced in the higher education sector at the beginning of the 1980s where it was mainly used to describe international education activities in a few higher education sectors such as international studies, educational exchange of students and academics, or international technical assistance (Knight, 2012). In the 1990s, internationalization started to

become a key issue in all sectors of higher education, focusing primarily on the non-commercial cross-border knowledge transfer through international education and research and the mobility of students and academics, aiming to equip scholars and students with international and intercultural competencies and experiences in response to the requirements of the globalized society, economy and labor market (Leask & Beelen, 2009). In the administrative structure of higher education institutions, international offices were established and became an important entity in brokering and managing international agreements and the international exchange of students and academics (Leask & Beelen, 2009). In the early 2000s, the emergence of new forms of telecommunication and the increasing globalization, accompanied by a decrease in governmental funding and administrative control of higher education institutions, resulted in an increased commercialization of knowledge transfer and a focus to more market driven activities (Altbach, 2004; Leask & Beelen, 2009). The increasing commercialization and privatization of higher education, the rise of the knowledge economy, the increasing importance of global higher education rankings and international research networks are only a few of recent developments and activities shaping the international dimension of higher education today (Knight, 2012).

Besides the transformations internationalization has led to in higher education worldwide in the last three decades, internationalization has also substantially changed itself. Today, it is usually divided into the two closely linked and interdependent streams ‘Cross-border education’ and ‘Internationalization at home’ (Knight, 2012). Cross-border education activities are the most visible international activities at universities and colleges and often seen and used as the main indicators to measure an institution’s or a faculty’s level of internationalization. These activities include all forms of education, research and cooperation across borders like the mobility of students and academics, international projects and academic partnerships, the delivery of education or services across national borders through face-to-face, via distance learning or via branch or franchise campuses abroad (Altbach & Knight, 2007; Knight, 2012). Just as important but less visible are Internationalization at home activities, a stream that emerged in the early 2000s besides the traditional cross-border education (Green & Olsen, 2003; Knight, 2012). These activities play a major role in the internationalization of the student body since the majority of the domestic students still do not study abroad or participate in any kind of international research or practical activity during their tertiary education (Bond et al., 2003; Green & Olsen, 2003). Internationalization at home activities aim to provide the students that are not able or willing to study abroad with relevant international experience and

competences through the integration of an international and intercultural dimension and a global perspective as well as foreign-language elements into the content and the teaching and learning methods of the curriculum (Bond et al., 2003). The transformation of internationalization over the last three decades, its multi-faceted impacts on higher education and its countless types of activities and projects require a definition of the concept ‘internationalization’.

### **2.1.2 Definition of Internationalization**

The multifaceted bouquet of international activities that can be observed in higher education today are all running under the internationalization label. This, however, inheres the danger that internationalization becomes a “catch-all concept” (Knight, 2012) for anything somehow related to the international dimension of higher education. Furthermore, it leads to a confusion of the term internationalization with other terms used in the higher education context, such as ‘globalization’, ‘intercultural education’, or ‘international studies’. These terms are closely related to internationalization and frequently used interchangeably while actual having a different meaning depending on the context and the person using them, making a careful definition and distinction between them necessary (Green & Olsen, 2003). The greatest deal of conceptual confusion exists in particular about the differentiation of the two concepts ‘internationalization’ and ‘globalization’. Both concepts are interrelated, making it difficult to distinguish fully between them (Altbach & Knight, 2007; Green & Olsen, 2003). Since the two terms are often confused in everyday discussions or used synonymously a brief differentiation of them is required for a clear conceptualization of internationalization.

Globalization of higher education not only considers the geographical dimension of internationalization activities, but also contains economic and competitive motives. Globalization and internationalization in the higher education context are therefore clearly linked but not synonymous concepts (Green & Olsen, 2003). In this perspective, Altbach & Knight (2004; 2007) define globalization “as the broad economic, technological, and scientific [and largely inevitable] trends that directly affect higher education” (2004, p. 5), “pushing 21<sup>st</sup> century higher education towards greater international involvement” (2007, p. 290). Among these ‘pushing’ trends are the massification of higher education, the investment of global capital in the knowledge industry, and the increasing privatization and commercialization of higher education, just to mention the most significant ones (Altbach, 2004; Altbach & Knight, 2007; Friesen, 2012).

Since the early 1990s scholars have given various definitions of internationalization, to some extent comprehensive ones, others very narrow. Some conclude that there is no simple and unique definition of internationalization of higher education encompassing all of its facets (Knight, 1994). For the purpose of this study a widely used and often cited definition of internationalization given by Knight (2012) will be used. She defines internationalization as “the process of integrating an international, intercultural, or global dimension into the purpose, function or delivery of post-secondary education” at national, sector and institutional level (Knight, 2012, p. 30). This, intentionally neutral, comprehensive and generic definition doesn’t narrow down internationalization to one or a few activities, but tries instead to include all activities and developments and tries to apply them to different countries, cultures, and education systems. In Knight’s definition, internationalization is conceptualized as a system-wide, holistic process and a continual effort of integrating international and intercultural perspectives into the curriculum, policies and activities of a higher education institution. This holistic definition underlines the importance of the development of an institution-wide faculty involvement in order to affect all three missions of a higher education institution, i.e. teaching, research, and service (Childress, 2010). Knight places her definition into a conceptual framework that also identifies rationales and stakeholders in the internationalization of higher education, which will be explored in the following section.

### **2.1.3 Rationales for Internationalization**

It is critical to understand the motivations, or rationales, which form the foundation for why universities and colleges, national governments and international bodies, the private sector, but also individuals like faculty members and students, engage in the international dimension of higher education (de Wit, 2000). Rationales for the internationalization of higher education are manifold and have changed over time. While in the European medieval university the social and cultural rationale for internationalization was dominating, political and economic rationales play a more significant role today. Only with “a clear set of rationales, accompanied by a set of objectives or policy statements, a plan, and a monitoring/evaluating system, the process of internationalization” can systematically respond to the numerous international activities and new developments (Knight, 2012, p. 8). De Wit (2000) was among the first who provided a structured analysis of rationales for internationalization. His rationale framework groups multiple motivations into four overarching rationale categories: political, economic, academic, and social/cultural (de Wit, 2000; Friesen, 2012; Knight, 2012). When analyzing the rationales,

the diversity of the stakeholders needs to be taken into account. The stakeholders come from the governmental, private, and educational sector and are usually affected by more than one rationale, which can vary and change over time in priority and according to country and region (de Wit, 2000).

Political rationales for the internationalization of higher education institutions were most dominant during the development process of the nation-states and the colonial era and gained a new dimension in the second half of the 21<sup>st</sup> century driven by world events such as the two World Wars, the Cold War and the terrorist attacks on September 11, 2001. They concern the importance of awareness of the outside world and the need to go beyond national borders in order to stimulate peace and mutual understanding, to develop foreign policy and to ensure national security. Area studies, foreign language training and academic exchange are promoted in order to equip students with the necessary skills and awareness to address these topics. After the end of the Cold War political rationales lost their prominent role and the emphasis changed to economic ones (Childress, 2010; de Wit, 2000; Green & Olsen, 2003).

In recent times, economic rationales became more and more prominent. They were for example the main driving force for the European programs for cooperation and exchange in teaching and research such as ERASMUS, established by the European Commission in 1987 (de Wit, 2000). The provision of students with intercultural skills and the capability to interact with diverse cultures in order to prepare them for domestic and international careers is an important economic rationale demanded from the business sector that needs such employees to be competitive in the global market (de Wit, 2000; Green & Olsen, 2003). Furthermore, internationalization is often seen in terms of its economic benefits for the higher education institution, which are competing for the recruitment of international students on the global knowledge market. Tuition-fee paying international students build an important source of income for many institutions. Besides business and education leaders also the individual student is driving the demand for internationalization by considering it to be essential for her personal economic competitiveness and professional success (Childress, 2010; de Wit, 2000; Green & Olsen, 2003). Economic rationales also apply to faculty members whose academic merits are measured, among other things, in the number of their international co-publications and research projects or the raise of international research funds.

Academic rationales to internationalize on the other hand aim to strengthen the ideal of liberal education and to enhance the quality of teaching and research. Academic rationales have to be seen in the light of the intrinsic ambition of higher education, where the concept of

universe is embedded in the concept of university (Knight, 2012). The intension is to equip students with a diversified world view, the capability to comprehend international dimensions of their study field and to be able to communicate in other languages and to possess cross-cultural sensitivity and adaptability (de Wit, 2000; Green & Olsen, 2003). Research indicates that academic rationales are usually the most important reasons for faculty members to internationalize their teaching and research (Green & Olsen, 2003).

Socio-cultural rationales point in the same direction as academic rationales. They are guided by the desire to provide students with the capability to live and work in a multicultural environment and to contribute to international understanding and address the increasing cultural and ethnic diversity in many countries (Childress, 2010; de Wit, 2000). Today, many higher education institutions are such international and cultural diverse organizations, recruiting the smartest and molded students and academics from all over the world, making the socio-cultural rationale to internationalize essential to faculty members.

Rationales are an important factor when analyzing faculty member engagement in internationalization. The presence of rationales is a basic requirement that can determine whether or not faculty members engage in internationalization. Furthermore, rationales can be a determining factor for an institution's incentive, support, and encouragement policies since different rationales imply different incentives for engagement. If e.g. a faculty member's main rationale to engage in internationalization is academically motivated, trainings and workshops in internationalization or the increased funding of teaching mobility could be an appropriate support provided by the university. The perspectives of the faculty members participating in this study towards internationalization in general and specifically the rationales driving them will be one component explored in this study.

## **2.2 Conceptualizing Staff Engagement in Higher Education**

While the majority of the literature exploring the engagement of faculty members in the international dimension of higher education investigates the impact and importance of faculty member engagement and the institutional and individual barriers impeding it, mostly derived from observations and surveys, only a minor number of studies have attempted to explore how faculty member engagement in internationalization is facilitated and enhanced (Li & Tu, 2015). From this scarcity of studies only a handful corroborates its analysis with findings from management, psychology, and organizational behavior disciplines where the concept of



employee engagement originally was developed. An understanding of some of the original concepts, however, is essential in order to develop a richer and more comprehensive understanding of how the individual incentives, support, and motivations facilitating faculty member engagement serve as a catalyst for it. Before diving into the concept of employee engagement, light will be shed on the specific characteristics of the academic profession. The academic profession differs considerably from other professions in the various sectors of production and service, which is an important factor that needs to be taken into account when analyzing the engagement of faculty members.

### **2.2.1 Characteristics of the Academic Profession**

While observing the various sectors of production and service as well as different institutions in modern society, distinct differences between the academic profession and corporate professions in businesses and industry can be found (Altbach, 1991; Enders, 2007; Finkelstein, 1984). Therefore, a closer look into those specific characteristics with relevance to employee engagement appears to be crucial when exploring and discussing faculty member engagement. In the first paragraph of this section, the traditional model of the academic profession as it existed for centuries will be presented. The characteristics presented here can still be attributed to the academic profession to a certain degree. However, although universities are generally known for being among the most change-resistant institutions in industrially developed societies, in recent years transformations are in progress, changing significantly some of these specific characteristics of the academic profession (Hyde, Clarke, & Drennan, 2013). This changing role of the academic profession will be presented in the second paragraph.

While there are significant variations and differences in the characteristics of the academic profession among countries and higher education institutions, academics in European research universities such as the University of Oslo have traditionally valued their autonomy and academic freedom as one of the primary principles of their profession (Altbach, 1991; Enders, 2007; Finkelstein, 1984). This professional autonomy which first and foremost concerns the freedom of teaching and research also inheres a high degree of autonomy in the use of time and a low degree of institutional control, limiting the university's room to maneuver with regards to influencing and eventually sanctioning faculty member's behavior (Enders, 2007). This also applies for the engagement of faculty members in additional or voluntary tasks such as internationalization activities, where institutions often depend on the faculty members' goodwill or are required to provide some form of compensation or remuneration through

incentives and support. However, the remuneration of academic staff through the university leadership also has its limitations, due to another specific characteristic of the academic profession closely associated with its autonomy. The control over the academic remuneration and recruitment system such as the criteria and the selection process, disciplinary rewards, recognition, and promotion policies, was to a great extent traditionally performed by the academic community itself and was one of its most important responsibilities (Altbach, 1991; Finkelstein, 1984).

The traditional autonomy of the academic profession is, however, under increasing pressure in the last few decades. “There is a general consensus in the literature that at a broad level, European universities have increasingly begun to adopt a working culture and ethos traditionally found in the private business sector” (Hyde et al., 2013, p. 40). Reasons for the shift from the traditional to a more management orientated model are financial restrictions, massification, and an increasing emphasis on quality and accountability in higher education institutions (Hyde et al., 2013). This new managerialism in higher education governance includes methods from the private market sector such as line management, increased importance of private funding, competition for financial resources, and professional administrators (Hyde et al., 2013). These new tendencies also have a strong impact on the academic profession, considerably undermining and eroding its autonomy in recent years. This development can be observed in an increasing shift in power from the academic to the administration sector in higher education institutions. Other consequences are an increasing diversification of the faculty members’ work, more control over their activities, and an impact on the substance of their disciplinary knowledge (Hyde et al., 2013). The development from the traditional model to a managerialist one has not been a clean shift and competing aspects of both of them can still be found, particularly in Scandinavian universities. Leadership, incentives, and support aiming to enhance faculty member engagement in internationalization do matter. However, the academic profession in Norway still enjoys a certain degree of autonomy limiting the institutions’ room to maneuver in influencing faculty members’ behavior. This imbalanced role of the academic profession needs to be considered when analyzing an institution’s ability to enhance faculty member engagement through incentives and support.

Given these change processes in the academic profession towards a more managerialist model in the last few decades, engagement needs to be understood in a broader manner. For this, one has to look beyond higher education models in order to unpack the specifics of faculty member engagement in a comparative and more nuanced manner. Therefore, the notion of

engagement will be conceptualized using an analytical tool that was not developed in the higher education literature. For the exploration of faculty member engagement in this study a concept from the generic management literature partially will be applied which will be presented in the following section.

### **2.2.2 Employee Engagement in the General Management Literature**

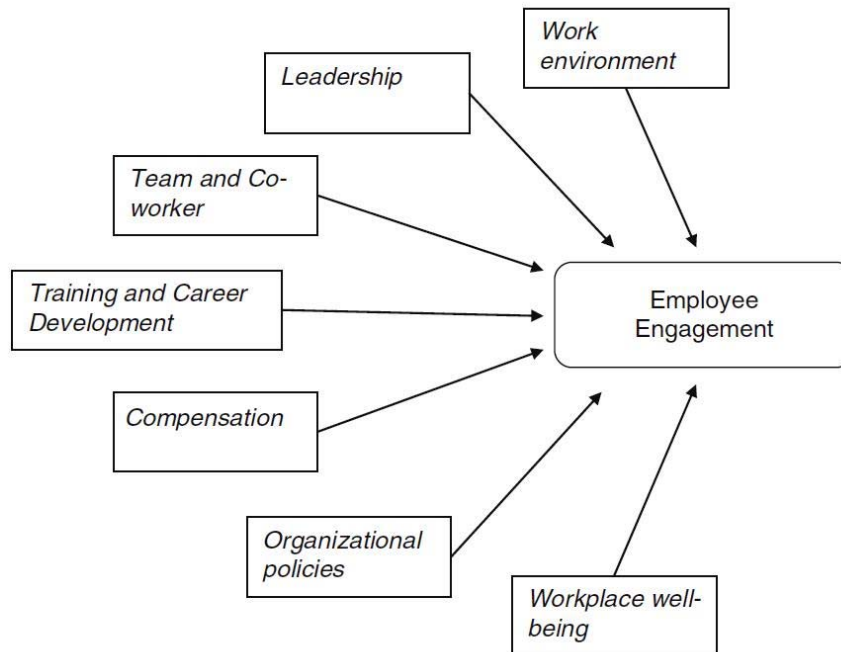
Employee engagement is a concept derived from management theory and has been known in research for almost three decades. The term initially has its roots in academic work but became a matter of concern and popular largely in management practice, particularly in business, industry, and consultancy where it was discussed mainly among leaders, managers and policy makers. Scholars, particularly from management, psychology, and organizational behavior disciplines became interested in the concept of employee engagement only one decade ago, when a number of studies adopted the concept from the practice and extended it to job, work, and organization engagement (Anitha, 2014; Welch, 2011). In these disciplines employee engagement is considered as a useful tool for every organization to gain competitive advantages over a competitor and as one of the most valuable and powerful factors to measure an organization's vigor if managed and engaged properly (Anitha, 2014). There is consensus among researchers from the different disciplines that employee engagement can bring "revolutionary transformation in the organizations", making engaged employees "loyal, committed, more productive, better performers, [...], more customer centric" and more profitable to the organization (Raina & Khatri, 2015, p. 285).

Employee engagement was first properly conceptualized by Kahn (1990, p. 694) who defined it as "the harnessing of organization members selves to their work roles; in engagement, people employ end express themselves physically, cognitively, and emotionally during role performances". Of importance in this first conceptualization is the three dimensional approach, *physically*, *cognitively*, and *emotionally*, adopted by other researchers conceptualizing employee engagement and important when measuring engagement (Welch, 2011). *Cognitive engagement* refers to the employee's awareness about their "role and mission" and contribution to the "goals and objective" of an organization and their understanding "why their contribution matters or how it affects others" (Raina & Khatri, 2015, p. 288). *Emotional engagement* describes the level of an employee's emotional and social connection to peers, superiors, and the organization itself. The term can be used to describe expressions and attributes like enthusiasm, interest, satisfaction, and enjoyment (Raina & Khatri, 2015; Selmer, Jonasson, &

Lauring, 2014). *Physical or behavioral engagement* is defined as the involvement in important activities and refers to the amount of hours employees spent on work, their level of concentration and attitude towards work tasks, and their willingness to engage in additional role performance and involvement in group activities (Raina & Khatri, 2015; Selmer et al., 2014).

Since Kahn's first conception of employee engagement, several further definitions have been developed that build upon and expand Kahn's concept. Raina and Khatri (2015) provide in their extensive literature review on faculty engagement a summary of various definitions evolved by researchers over the last three decades. They define employee engagement as the "cognitive, emotional and behavioral state of an employee with desired organizational results as aim", "the degree to which an employee puts discretionary efforts into his or her work over and above required time, brainpower or energy", and a "positive, fulfilling, work-related state of mind that is characterized by vigor, dedication and absorption" (Raina & Khatri, 2015, p. 287). Anitha (2014) also provides a general summary of several definitions, conceptualizing employee engagement "as the level of commitment and involvement an employee has towards their organization and its values" (p. 308). According to her, an engaged employee "is aware of his responsibility in the business goals and motivates his colleagues alongside, for the success of the organizational goals." [...] "Engaged employees go beyond the call of duty to perform their role in excellence (p. 308). Saks (2006) was among the first scholars developing his own construct of employee engagement also by building upon Kahn's (1990) definition and expanding it to job and organization engagement. "According to Saks the antecedents of employee engagement were job characteristics, perceived organizational support, perceived supervisor support, reward and recognition, procedural justice and distributive justice" (Anitha, 2014, p. 310).

These antecedents, or determinants, are crucial for the conceptualization of employee engagement and will therefore be further explored. By applying Kahn's (1990) three dimensions of employee engagement (physically, cognitively, and emotionally) and based on the current literature on employee engagement from management, psychology, and organizational behavior studies, Anitha (2014) identified and empirically tested various factors determine employee engaged. She summarizes the valid determinants of employee engagement into the following concept of factors facilitating employee engagement:



**Figure 1.** Factors facilitating employee engagement by Anitha (2014)

According to Anitha several research studies show that employee engagement is the result of various aspects of the workplace. A meaningful Work environment where the management “aids employees for focused work and interpersonal harmony” by displaying concern for the employees’ needs and feelings and by providing positive feedback and encouragement is considered one of the significant factors determining the level of engagement of employees (Anitha, 2014, p. 311).

Besides the work environment, Leadership was identified as the second main fundamental factor facilitating employee engagement. Several studies show that inspiring, authentic, and supportive leadership that values the employees’ efforts as important and meaningful increases the employees’ involvement, satisfaction, and enthusiasm for work, resulting in a strong impact of the leadership factor in employee engagement (Anitha, 2014).

The third factor determining employee engagement is the relationship among the Team and Co-worker. Kahn (1990, p. 708) found in his research on employee engagement that “supportive and trusting interpersonal relationships” in a supportive team foster employee engagement. His findings are supported by other researchers who found out that positive interpersonal relationships among co-workers have a significant impact on the meaningfulness of the work, leading to high engagement of employees (Anitha, 2014).

Training and Career Development is another factor facilitating employee engagement. Research shows that training and learning development not only improves the employees' service accuracy and performance but also strengthens their confidence and motivation. Some researchers even argue that giving employees the opportunity for growth and development has the same effects as rewarding the employees (Anitha, 2014).

This leads to another indispensable dimension in the process of engaging employees, the Compensation or Remuneration of employees. This determinant can come in form of financial and non-financial rewards like bonuses, extra holidays or a reduced workload, motivating employees to achieve more (Anitha, 2014). Saks (2006) revealed in his study that recognition and rewards are key factors in engaging employees, noticing that when "employees receive these resources from their organization they feel obliged to repay the organization with greater level of engagement" (p. 603). It is therefore essential for an organization's leadership to provide adequate remunerations and recognition to its employees, if a higher level of employee engagement is going to be achieved

Organizational Policies, Procedures, and Structures are a further factor contributing to a high level of employee engagement in an organization. These policies and procedures include e.g. an organization's recruitment and promotional policy, flexible work arrangements, and work-life balance. Specifically an organization's recruitment policy has got direct impact on future employees' engagement and commitment (Anitha, 2014).

Workplace Wellbeing is defined as all the things that matters in our lives and how we think about and experience them. Workplace wellbeing can be considered as a holistic factor enhancing engagement of employees and measures the influence an organization and its management has on the employees (Anitha, 2014).

Some of the findings from the general management literature on employee engagement presented above are of specific importance to this study and can be applied to faculty member engagement in higher education. In particular, Anitha's concept of *Factors facilitating employee engagement* will be used for the development of an analytical framework aiming to explore how individual incentives, support, and motivations serve as a catalyst for faculty member engagement the internationalization of education. After the review of findings from the generic management, psychology, and organizational behavior literature on employee engagement the following sections will examine the relevant literature that specifically addresses the engagement of faculty members in higher education settings.

### 2.2.3 Faculty Member Engagement

Although the majority of the studies from the generic management, psychology, and organizational behavior literature presented in the previous section focus on corporate employee engagement only, higher education institutions also face this topic. While student engagement has been a well-known concept in higher education research for many years, the concept of faculty member engagement is relatively new and still in its infancy stage, significantly limiting the number of studies available on this topic (Barman & Saikat, 2011; Livingston, 2011; Raina & Khatri, 2015; Selmer et al., 2014). This is unfortunate since the engagement of faculty members may not only have a strong impact on student learning and support, as a handful of studies on student engagement conclude, but also on the functioning of the faculty members as a group and the development of the whole institution where it is applied (Barman & Saikat, 2011; Selmer et al., 2014). While higher education institutions significantly differ from corporations as presented in section 2.2.1, some of the elements of corporate employee engagement also do have validity for faculty member engagement. This is in particular the case for some of the factors facilitating employee engagement such as Leadership, Compensations, or Training and Career Development. However, an adequate number of empirical studies exploring this relationship is lacking.

Nakamura & Csikszentmihalyi (2005) identified in their exploration of faculty member engagement in undergraduate teaching four areas that play a key role for possible faculty member engagement: “Educating students; preserving and advancing a specific domain of knowledge; serving the needs of the institution; and responding to the needs of the broader society” (p. 62). The authors claim that faculty members engage in their work if they find enjoyable challenges in one or more of these areas and if those challenges concur with the faculty member’s own values (Nakamura & Csikszentmihalyi, 2005). This preliminary and very basic attempt to conceptualize faculty member engagement, however, hasn’t been empirically tested by the authors. Livingston (2011) attempted to fill this gap in her exploration of personal experiences of faculty members with regard to engagement. She provides a definition of faculty member engagement by defining it as “perpetual focused attention, enjoyment, and enthusiasm for the activities associated with faculty work through which the individual finds purpose, senses congruence with personal values and talents, is challenged to use knowledge and skills, and experiences productivity even during difficult times” (p. 11). Furthermore, she suggests four dimensions/areas faculty member engagement impacts: teaching, research, service and fit to the institution. Selmer et al. (2014) explored in a

quantitative study the correlation between internal knowledge processing among faculty members in multicultural university departments and the faculty member's level of engagement. Their results show consistent positive effects of group knowledge processing on all three dimensions of employee engagement, i.e. cognitive, emotional, and behavioral engagement. Through interviews with over 240 faculty members at a US university, Hagner & Schneebeck (2001) attempt in their study to classify predominant characteristics of faculty members with regards to engagement in teaching into four groups. In their classification *the Entrepreneurs* are highly engaged, show a high level of commitment and competency and do not seek rewards or recognition for their work. *The Risk Aversives* share the same commitment as *the Entrepreneurs* but are not proactive, lack expertise and need significant instructional and institutional support. *The Reward Seekers'* motivation is tied to the university's reward structure. They only engage when engagement is related to tenure, promotion, and salary. *The Reluctants* show the highest level of resistance towards engagement. These faculty members hold on to old traditional patterns and refuse to change behavior. Hagner & Schneebeck (2001) conclude that any institution intending to enhance faculty member engagement, first must determine the existing mix of faculty groups before choosing the engagement strategy.

Even though the limited literature is not able to provide a comprehensive conceptualization and various definitions of faculty member engagement in higher education, some of its findings are of relevance to this study. Hagner & Schneebeck's (2001) findings have to be considered when analyzing the data on the faculty members' perception towards the different incentives, support, and motivations facilitating faculty member engagement in internationalization, taking into account that the individual faculty members' opinion and beliefs highly depend on their predominant characteristic. Furthermore, Livingston's (2011) definition of faculty member engagement is a successful and useful attempt to define faculty member engagement. Livingston's definition will be considered in the selection process when a purposive sampling technique will be applied in order to select significant respondents from the target population (see section 4.2.1).

### **2.3 Faculty Member Engagement in Internationalization**

Despite the limited literature on faculty member engagement in higher education and thus a lack of solid foundation of the concept further research could build on, the literature on faculty member engagement in the internationalization of higher education is quite extensive. While the majority of the studies investigate and elaborate the potential and importance of



faculty member engagement in internationalization and the institutional and individual barriers impeding it, mostly derived from observations and surveys, only a minor number of studies have attempted to explore how faculty member engagement is facilitated and enhanced (Li & Tu, 2015). The following sections will provide an extensive analysis of the latest findings on faculty member engagement in internationalization by looking into its significance, barriers impeding it, and factors facilitating it.

### **2.3.1 Significance of Engagement**

The literature exploring the engagement of faculty members in the international dimension of higher education unanimously agrees that an institution-wide engagement of faculty members is crucial and the most important factor for an institution to operationalize its internationalization plans and to successfully implement its internationalization activities and goals (Childress, 2010; Finkelstein, Walker, & Chen, 2013; Friesen, 2012; Green & Olsen, 2003; Leask & Beelen, 2009; Li & Tu, 2015; Stohl, 2007). Faculty members are described as “catalyst and initiators of international programs and collaborations” (Finkelstein et al., 2013) and as “primary agents in the internationalization process within their institution, being both contributors and inhibitors, actively furthering internationalization as well as being impacted by its effects” (Friesen, 2012, p. 210). It is the faculty who has got the authority over the curricula, research and service and who is able to mobilize a critical mass of faculty members supporting an institution’s internationalization activities (Bond et al., 2003; Stohl, 2007). In every university system it is the faculty members who hold the keys to education and who are shaping future generations via cross-cultural teaching and curriculum, by initiating international programs, and by promoting institution’s international competition (Green & Olsen, 2003; Li & Tu, 2015). Although higher education institutions are able to provide the necessary mechanisms for student mobility without the engagement of the faculty members, the number of exchange students will not only be less sizeable than it could be, but the institution will also not be able to deliver the learning, research and service that it seeks through internationalization (Stohl, 2007). Different approaches to internationalization can be identified in the higher education literature, but regardless the approach scholars agree that their success depends upon the engagement of the faculty members (Childress, 2010; Knight, 2012; Stohl, 2007).

### **2.3.2 Barriers to Engagement**

While scholars agree on the importance of faculty member engagement in the international dimension of higher education they simultaneously observe the difficulty among higher education institutions in initiating this engagement (Childress, 2010; Leask & Beelen, 2009; Stohl, 2007). Childress (2010) argues that while many higher education institutions have developed and formulated detailed internationalization plans and goals, a significant gap exists between the development of these plans and the development of an institution wide faculty member involvement. Higher education institutions struggle to move internationalization out of their international offices and engrain it into the faculties' agendas, where the academic teaching and learning process often still is considered as separate from the development of an intercultural and international awareness of the student body (Brewer & Leask, 2012; Childress, 2010). For many faculty members, the intercultural and international awareness of their students, as well as international cooperation with other higher education institutions in teaching and research still plays a subordinated role, or the faculties do not have qualified staff or relevant experience in internationalization issues (Clifford, 2009; Green & Olsen, 2003). Scholars have identified numerous barriers preventing faculty members to engage in internationalization.

In an early study, consisting of a series of interviews with administrator and faculty members at the University of Minnesota, Ellingboe (1998) identified numerous resistance factors to internationalize. Those resistance factors can be grouped into institutional and individual barriers that need to be overcome. If faculty members mainly face institutional barriers higher education institutions can approach these barriers by adjusting relevant policies and practices in order to stimulate faculty member engagement. Even the most committed faculty members will not engage in internationalization without sufficient institutional support to overcome the institutional barriers they face. Individual barriers on the other hand present the greater challenge for higher education institutions. These barriers derive from personal attitudes towards, and the capacity of the individual, to internationalize and are therefore difficult to approach through new policies and structural changes (Green & Olsen, 2003). The exploration of the main institutional and individual barriers research has identified is essential to this study since it will analyze how these barriers can be overcome through incentives, support, and motivations aiming to enhance faculty member engagement.

Institutional barriers concern organizational practices and policies. Research indicates that the lack of financial resources is one of the most frequent institutional barriers preventing the development of faculty member engagement in internationalization (Childress, 2009b; Ellingboe, 1998; Green & Olsen, 2003). Insufficient funding is a reason for inaction applying to all sectors of higher education and internationalization is no exception to this. Financial constraints prevent faculty members from participating in teaching and research abroad due to the significant travel and living costs abroad and the costs caused by filling the vacancies due to the absence of the faculty member. Furthermore, cutbacks at higher education institutions often hit travel funding first, particularly travels abroad (Ellingboe, 1998; Green & Olsen, 2003). Due to the marginal status internationalization enjoys at some higher education institutions, the underfunding of faculty member engagement in internationalization is further intensified (Ellingboe, 1998; Green & Olsen, 2003).

The lack of institutional and disciplinary reward and recognition are another obstacle to successful internationalization (Ellingboe, 1998; Green & Olsen, 2003). If the infusion of internationalization into teaching, research, and service is not valued as professional achievement and academic useful and rewarded appropriately through tenure, promotion, and incentive policies by the institutional and departmental leadership, faculty members will not engage in internationalization (Ellingboe, 1998; Leask & Beelen, 2009; Stohl, 2007). This appreciation of internationalization varies among disciplines. A physics department has a different prioritization than a humanities department and therefore a different reward and recognition structure, often derived from disciplinary beliefs grounded in the discipline itself but also due to practical reasons (Stohl, 2007).

Disciplinary structures and standards can also serve as an institutional barrier to internationalization. The discipline-based structure and often strict division between the academic departments hinders interdisciplinary collaboration, one of the critical dimensions of an internationalized curriculum (Green & Olsen, 2003). Faculty members are first and foremost committed to their disciplines and departments, limiting their ability to work collaboratively and interdisciplinary in developing internationalized courses (Green & Olsen, 2003). Childress (2009a) shows in her study on interdisciplinarity as a catalyst for faculty engagement in internationalization that the interdisciplinary collaboration and the associated inter-departmental sharing of international teaching and research resources across the institution is an important requirement for the implementation of internationalization plans.

The specific academic and cultural orientation of disciplines can also significantly impede faculty members to engage in internationalization (Bond, 2003; Bond et al., 2003; Green & Olsen, 2003; Stohl, 2007). While some disciplines are in their nature intrinsically international and global, other disciplines are constructed more from a domestic point of view, making the faculty members' involvement in internationalization dependent upon their discipline's international focus or lack thereof (Childress, 2009a). In this regard disciplines "tend to prioritize their teaching and research agenda based on the current needs and issues of their disciplines rather than their institution" (Childress, 2009a, p. 3). Other faculty members see any change in the disciplinary content and structure as contributing to the loss of quality (Bond, 2003). Internationalization is often seen as just another reform initiated by the university leadership and demanded from the faculties while they are still coping with earlier reforms and initiatives, leading to competing priorities within the faculty (Bond, 2003).

A lack of institutional encouragement and promotion of internationalization has been identified as a further barrier (Bond, 2003; Childress, 2010; Green & Olsen, 2003). There is evidence that faculty members who were not involved in the formulation of international plans or were not member of an international committee are often unaware of these initiatives and directives. Bond et al. (2003) revealed in their study that faculty members encounter a lack of discussions and the exclusion from decision making regarding internationalization topics. Stohl (2007) supports these finding by referring to his personal experiences as Study Abroad Director, pointing out that almost every international activity on faculty level could be traced down to the effort of those faculty members who had a direct relationship or link to the international office. The development of a broad involvement and instruction of faculty members through the inclusion of latent supporters, sceptics, and opponents, however, is crucial (Bond, 2003; Childress, 2009a; Green & Olsen, 2003) because the process of institutional transformation "cannot be owned by a small group, as it becomes marginalized and can be seen as an exclusive, rather than inclusive issue" (Knight, 1994, p. 12).

While some internationalization plans include strategies for addressing institutional barriers, the importance of individual barriers also needs to be recognized. Green & Olsen (2003, p. 73) argue, that while "lowering institutional barriers will facilitate the involvement of faculty who are already motivated to engage in internationalization, [the widen of] the circle beyond this core group requires examining the individual attitudes and beliefs that drive faculty behavior". Individual barriers arise from personal attitudes, knowledge, skills, and cognitive

competence of the individual academic towards internationalization (Bond, 2003; Bond et al., 2003; Childress, 2009a; Ellingboe, 1998; Green & Olsen, 2003).

Personal attitudes towards internationalization impact the willingness of the individual faculty member to engage in internationalization activities. If faculty members do not value international teaching and research they tend to decline to participate in these activities and refuse to implement their institutions' internationalization plan (Childress, 2009a; Stohl, 2007). International competencies may be considered irrelevant by some faculty members and additional technical expertise as more important. Faculty members' negative attitudes towards foreign higher education institutions and their level of instruction also play a role. Other faculty members are critical about the student's abilities to cope with complex international issues or course content taught in a foreign language (Ellingboe, 1998; Green & Olsen, 2003). The value that faculty members ascribe to internationalization often relates to their personal international/intercultural experiences.

Thus personal international/intercultural knowledge and skills are another important factor (Ellingboe, 1998). Research indicates that faculty members that haven't lived, worked, or travelled abroad, that do not have significant interaction with people from different cultural backgrounds, or that do not have foreign language skills, do not recognize the importance of internationalization and therefore engage less in these activities than colleagues who possess such international/intercultural knowledge and skills (Bond, 2003; Ellingboe, 1998; Green & Olsen, 2003). In many countries a fundamental obstacle among faculty members towards internationalization is language (Leask & Beelen, 2009). Most international education and research cooperation is delivered in English. Even when the faculty members are fluent in English, there is a considerable difference between a good command in English and the specific methodology of a discipline or the development of a learning and research environment in a second language (Leask & Beelen, 2009). Staff development through training, international exchange, and recruitment policies can be a solutions for that.

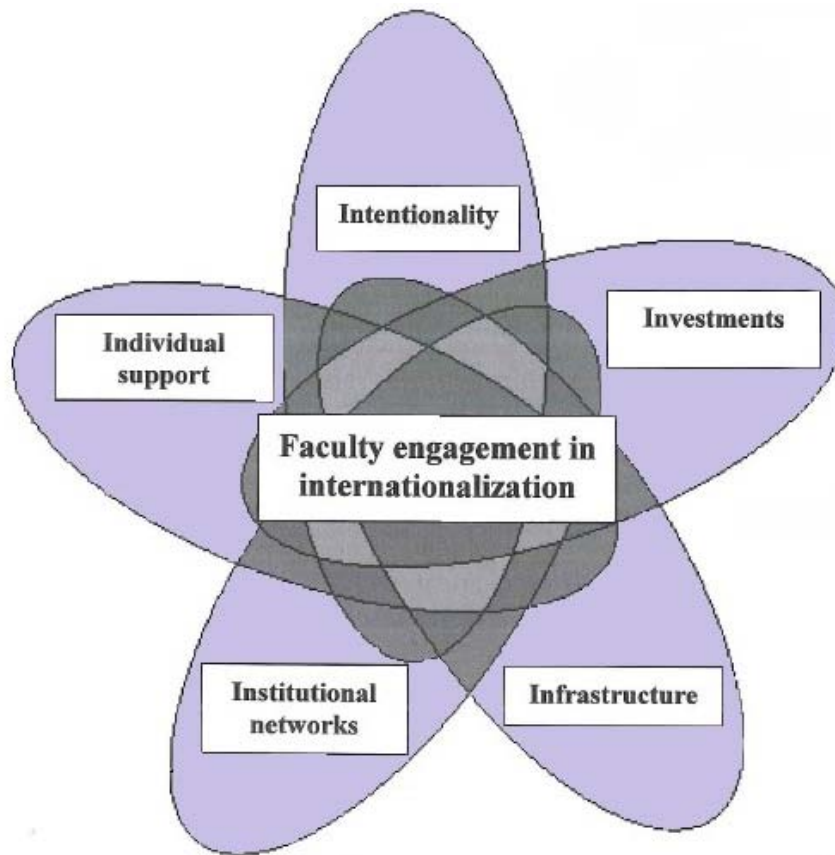
However, the existence of international experience among faculty members does not guarantee the engagement in internationalization of the same if the individual faculty members lack the cognitive competence necessary to connect and integrate their international experiences and knowledge with their teaching, research and service (Childress, 2009a; Green & Olsen, 2003; Leask & Beelen, 2009). Therefore, "specific intellectual, pedagogical, and assessment skills [...] may be necessary to enable [faculty members] to infuse international content into their teaching and research (Childress, 2009a, p. 6).

In order to tackle and overcome these institutional and individual barriers impeding faculty member engagement in internationalization, a few researchers have explored and identified various factors facilitating and enhancing the engagement of faculty members.

### **2.3.3 Factors Facilitating Engagement**

As pointed out in the introduction to this segment, only a minor number of studies investigating faculty member engagement in internationalization explores which incentives, support, and motivations facilitate and enhance faculty member engagement. From the scarcity of studies attempting to do so a negligible number refers to findings from psychology and behavioral disciplines and to the author's knowledge none to the concept of employee engagement from the general management literature. The following paragraph presents the findings of the few studies with relevance and specific importance to this study.

In her exploration of faculty member engagement in internationalization Childress (2010) provided not only an extensive analysis of the topic but also concrete strategies and a model for the development of faculty member engagement by analyzing two US universities. Both institutions were exemplary cases with a high level of internationalization and faculty member engagement as key components of their internationalization strategy. First, Childress explored through individual case studies the universities' level of internationalization in relation to their faculty member engagement. In a cross-case analysis she then synthesized the findings breaking down the process of developing faculty member engagement into five constituent parts. Her findings indicate that universities can strategically develop faculty member engagement in internationalization through the application of five components – (1) Intentionality, (2) Investments, (3) Infrastructure, (4) Institutional networks, and (5) Individual support. Childress (2010, p. 159) claims that “colleges and universities seeking to internationalize should intentionally articulate their internationalization goals, make long-term investments to provide resources targeted for faculty engagement, develop infrastructure to create foundational programmatic support, develop institutional networks to enable faculty to gain awareness of international opportunities, and provide support for individual faculty to connect institutional goals for internationalization with their personal scholarly agenda”. Through the combination of these five components Childress derived a model for the development of faculty member engagement which she calls the “*Five I's of Faculty Engagement in Internationalization*” (2010):



**Figure 2.** Five I's of Faculty Engagement in Internationalization by Childress (2010)

In Childress' cybernetic model none of the variables leads to faculty member engagement on its own. Instead, the interconnectivity among institutional subsystems, feedback loops, and stakeholders is emphasized which is visualized by Childress in a Venn diagram emphasizing the connection among each overlapping loop (Childress, 2010). She summarizes the five factors as follows:

Intentionality describes the formalization of internationalization as an institutional priority, the clear articulation of internationalization goals, and the provision of focus, organization, and resources to faculty members, e.g. through the creation of multiple types and levels of internationalization plans and the promotion and advocacy of internationalization by the university leadership.

Investments are the allocation of long-term financial sources from diverse funds (i.e. international, national, and institutional) at various levels throughout the institution (i.e. central, faculty, and departmental), e.g. through the provision of travel grants to international conferences and research project, or financial support to internationalize the curricula.

Infrastructure concerns the provision of faculty members with organizational and programmatic support aiming to equip them with international perspectives in their teaching and research, e.g. through seminars abroad, trainings, workshops, the development of international degree programs, or a campus overseas.

Institutional networks aim the creation of communication channels for faculty members to gain awareness about international opportunities, resources, and their colleagues' regional expertise and interest in order to develop collaborations among faculty members, e.g. through campus-wide internationalization committees, international seminars and centers, or an international Web portal for faculty members.

Individual support describes the provision of support to faculty members to connect their personal research agendas with the institution-wide internationalization goals; e.g. through the integration of internationalization into the faculties strategic plans or the informing of faculty members about international opportunities based on their individual areas of expertise and regional interests (Childress, 2010).

Childress' model is of specific importance to this study since it significantly contributes to the analytical framework the author developed in chapter III to analyze how incentives, support, and motivations serve as a catalyst for faculty member engagement in the internationalization of education. Childress' model, however, neither builds upon basic studies of employee engagement from the generic management, psychology, and organizational behavior literature nor does it consider the faculty members' individual motivations. The analytical framework developed by the author attempts to fill this gap.

In a study conducted among faculty members from all disciplines at eight Chinese higher education institutions gathering data through a questionnaire, Li and Tu (2015) explored the factors driving faculty member engagement in international teaching, research, and scholarship. Building upon psychological studies the authors developed a conceptual model differentiating between *individual* factors (intrinsic motivation) and *environmental* factors (extrinsic motivation). Their findings suggest that both individual and environmental motivations positively impact faculty member engagement in internationalization, but that individual motivations dominate the determinants while they simultaneously play a mediating role between environmental motivations and faculty member engagement in internationalization. The authors conclude that only relying on external factors such as investment and promotion policy will have little influence on faculty member engagement in



internationalization. Without an improvement of the faculty members' perception of internationalization they will not become an active part of it. Therefore, higher education institutions should rather use external incentives to satisfy the faculty members' individual needs in order to stimulate their individual motivation (Li & Tu, 2015). A limitation of the study is the lack of an analysis of each individual/single factor since it only uses the dual-classification of individual and environmental factors. Furthermore, the authors did not differentiate between the various academic disciplines. The present study picks up on Li & Tu's findings by investigating all individual factors facilitating and enhancing faculty member engagement with a specific focus on faculty members from the STEM disciplines at a Norwegian higher education institution. Using semi-structured interviews instead of questionnaires deeper and richer data on the individual factors shall be gathered.

Similar to Li & Tu's study, Finkelstein et al. (2013) conducted a study exploring factors shaping American faculty members' decision to internationalize their research. While the findings suggest that both individual and institutional factors significantly account as dependent variables the authors found that the time a scholar spent abroad after the baccalaureate was the most "pervasive and powerful" predictor for internationalization of his/her research (Finkelstein et al., 2013). The authors conclude that the findings provide solid quantitative empirical support that the provision of graduate students and faculty members with extended cross-border experience is the surest way to internationalize the faculty members' research. This conclusion is supported by other authors who highlight that faculty members "with higher levels of international experiences at different educational stages" (Schwietz, 2006) or with a "lived experience in their study abroad work" (Savishinsky, 2012) show a higher level of engagement in internationalization, while Beatty (2013) identified factors related to the "university's commitment to internationalize, institutional leadership and organizational practices" as the more decisive factors.

The partially inconsistent research findings presented in this section indicate that the enhancement of faculty member engagement in internationalization is facilitated both by external institutional incentives and support as well as individual intrinsic motivations, with potentially the intrinsic motivations being the more decisive factor. The present study attempts to investigate these findings with regards to the internationalization of education at a Norwegian higher education institution. This will be done through the development of a comprehensive analytical framework of factors facilitating faculty member engagement in internationalization in the following chapter.

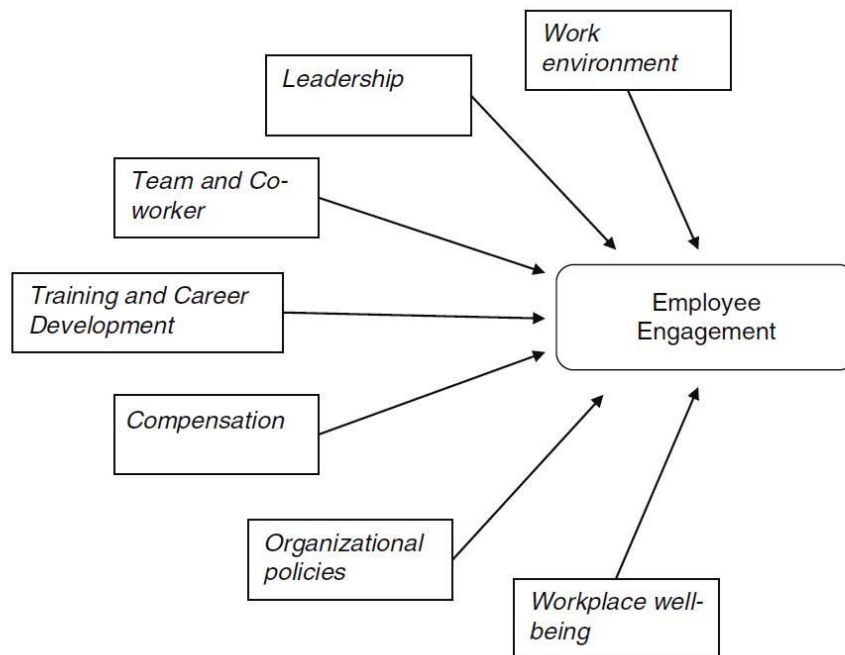
## **Chapter III – Analytical Framework**

This chapter introduces the analytical framework aiming to explore how incentives, support, and motivations serve as a catalyst for faculty member engagement in the internationalization of education. First, the concept and the model the analytical framework is derived from will be introduced. Afterwards, the development of the new analytical framework will be presented. The new analytical framework is developed and derived from Anitha's (2014) concept of '*Factors facilitating employee engagement*' and Childress' (2010) model of '*Five I's of Faculty Engagement in Internationalization*'. By integrating key findings on employee engagement from the generic management, psychology, and organizational behavior literature into findings on faculty member engagement in internationalization from the higher education literature, the author aims to expand and enrich the understanding of which factors facilitate the faculty members' engagement in the internationalization of education and how the individual factors serve as a catalyst for it. While previous higher education studies have sought to consider external and internal factors facilitating faculty member engagement, none of them has attempted to provide a framework including all single factors. The new analytical framework developed by the author aims to fill this gap.

### **3.1 Contributing Steps to the Analytical Framework**

#### **3.1.1 Anitha's Concept of Factors Facilitating Employee Engagement**

By applying Kahn's (1990) three-dimensional approach, Anitha (2014) identified and empirically tested various factors determine employee engagement, resulting in her concept of seven '*Factors facilitating employee engagement*': (1) Work environment; (2) Leadership; (3) Team and Co-worker; (4) Training and Career Development; (5) Compensation; (6) Organizational policies; (7) Workplace wellbeing (see section 2.2.2):

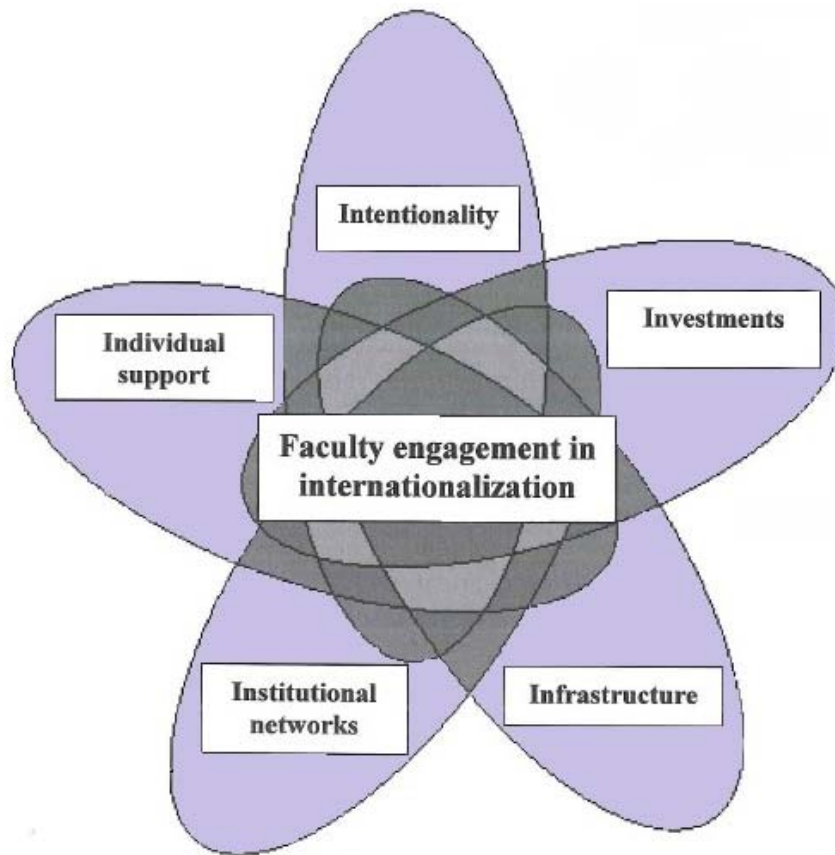


**Figure 3.** Factors facilitating employee engagement by Anitha (2014)

Anitha’s concept from the generic management, psychology, and organizational behavior literature will be used to complement a model from the higher education literature developed by Childress.

### **3.1.2 Childress’ Model of Five I’s of Faculty Engagement in Internationalization**

In her exploration of faculty member engagement in internationalization at two US universities Childress (2010) conceptualized a model of ‘*Five I’s of Faculty Engagement in Internationalization*’. In her model Childress breaks down the process of the development of faculty member engagement in internationalization into the five constituent parts (1) Intentionality, (2) Investments, (3) Infrastructure, (4) Institutional networks, and (5) Individual support (see section 2.3.3):



**Figure 4.** Five I's of Faculty Engagement in Internationalization by Childress (2010)

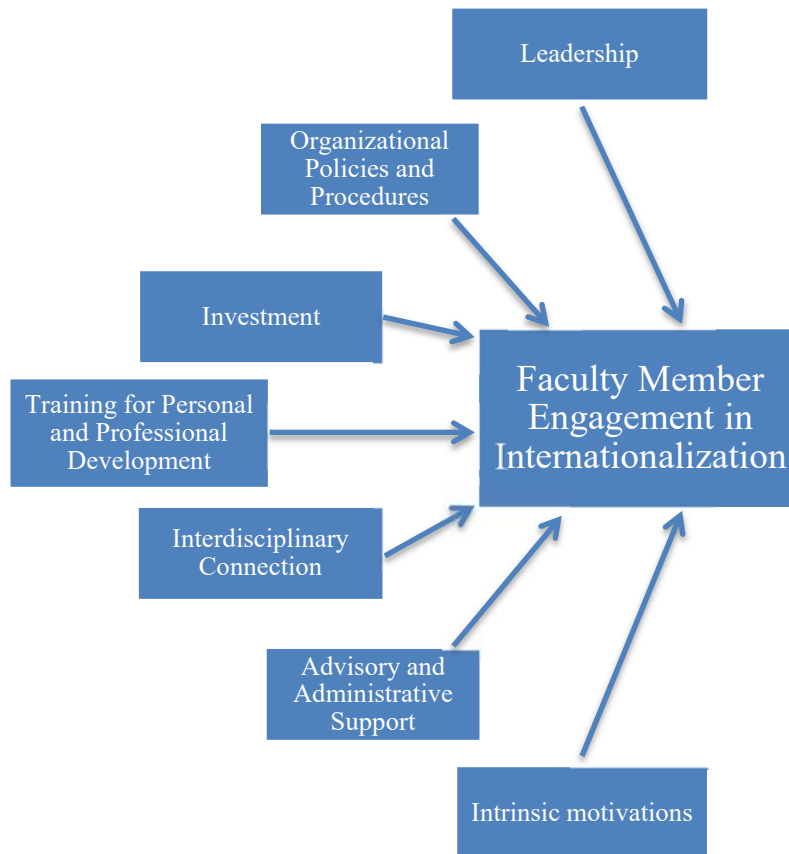
Childress developed her model in order to empower practitioners to apply and adapt it to their unique institutional context and need, aiming to develop faculty member engagement in internationalization. The '*Five I's of Faculty Engagement in Internationalization*' model builds the basis for the analytical framework and will be complemented by Anitha's concept of '*Factors facilitating employee engagement*'. By integrating theoretical approaches on employee engagement from the generic management, psychology, and organizational behavior literature into Childress' higher education model a conceptually more solid model shall be developed.

### **3.2 Development of the Analytical Framework**

This study aims to explore how the individual incentives, support, and motivations serve as a catalyst for faculty member engagement in the internationalization of education. For this purpose, a new analytical framework will be developed. While previous higher education studies have sought to consider external and internal factors facilitating faculty member

engagement, none has yet attempt to provide a framework including all individual factors. The new analytical framework aims to fill this gap. It combines key findings on employee engagement from the generic management, psychology, and organizational behavior literature with findings on faculty member engagement in internationalization from the higher education literature, aiming to expand and enrich the understanding of how the individual incentives, support, and motivations serve as a catalyst for faculty member engagement. The new analytical framework conceptualizes faculty member engagement in internationalization as an individual choice shaped by external organizational and internal individual factors in the work environment, all contributing in varying degree to it. Based on the literature the framework is derived from, not all factors need to be given to facilitate and enhance engagement. The framework will be used as a tool to explore the faculty members' perceptions of the individual incentives, support and motivations and to analyze how these factors actually enhance the faculty members' engagement.

Childress' study is one of the few in higher education literature not only exploring barriers hindering faculty member engagement in internationalization but also identifying factors that are facilitating it. Childress' model is, however, limited in a sense that her model only identifies and considers institutional organizational factors while neglecting individual internal factors. This is justifiable since this was the purpose of Childress' study. However, considering the findings from higher education research on individual barriers impeding faculty member engagement (see section 2.3.2) and internal factors facilitating it (see section 2.3.3), for a comprehensive analysis all factors need to be considered, compared, and contrasted. Anitha's concept on the other hand takes these internal factors into account by applying Kahn's (1990) three-dimensional approach (physically, cognitively, and emotionally). Anitha's concept, however, follows a generic approach of employee engagement aligned to corporate professions in businesses and industry. Neither are the specific characteristics of the academic profession (see section 2.2.1) considered nor is the concept aligned to the engagement of faculty members in internationalization. By integrating Anitha's concept the author aims to expand and enrich Childress' model with findings on employee engagement from management, psychology, and organizational behavior disciplines. After an extensive analysis and comparison of both models the author identified conformities, similarities and differences. The findings were then extracted and summarized into a new analytical framework of '*Factors facilitating faculty member engagement in internationalization*':



**Figure 5.** Factors facilitating faculty member engagement in internationalization

The individual factors facilitating faculty member engagement in internationalization are defined as follows:

- **Leadership:** Inspiring and authentic promotion/advocacy of internationalization and provision of positive feedback and encouragement by the university leadership; e.g. through the inclusion of faculty members into the development of internationalization plans; the nomination into international committees and advisory boards.
- **Organizational Policies and Procedures:** Formalization of internationalization as institutional priority by integrating it into the organization’s strategic plans and recruitment and promotional policy; e.g. through multiple types of internationalization plans and clear articulation of goals; disciplinary rewards, recognition, and promotion for international engagement; integration of international experience into recruitment.

- **Investment:** Fundraising for internationalization from diverse financial sources and allocation of compensations and remunerations on various institutional levels; e.g. through travel grants; scholarships; teaching load reduction, financial remunerations; additional staff; provision of a substitute while abroad.
- **Training for Personal and Professional Development**  
Personal and professional development of faculty members by providing them with international perspectives in teaching and research; e.g. through language courses; workshops on internationalization; conference and seminar participations abroad, establishment of campuses abroad.
- **Interdisciplinary Connection:** Supportive collaborations and positive interpersonal relationships among faculty members over disciplinary borders aiming to enhance awareness about international opportunities, resources, and regional expertise and interest; e.g. through the establishment of internationalization committees on central and faculty level; international centers; international web portal for faculty members.
- **Advisory and Administrative Support:** Advisory and administrative support aiming to connect faculty members' personal research agendas with the institution-wide internationalization goals and to inform them about international opportunities based on their individual needs, areas of expertise and regional interests; e.g. through the integration of internationalization into the faculties' strategic plans; special international advisors on central, faculty, and departmental level.
- **Intrinsic motivations:** Considering internationalization as a crucial component contributing to a meaningful work environment and workplace wellbeing; e.g. through interaction with international students and partners; an international/intercultural work environment; application of language proficiencies.

The new framework reflects all individual incentives, support, and motivations as they were defined in section 1.3. The first six factors of the framework present the various external stimuli provided by the university or other entities such as financial, administrative, and organizational support and encouragement. The Intrinsic motivation factor covers internal factors such as the faculty members' personal motivations. The rationales to internationalize are reflected in all factors, however, they are more abstract since they can both drive personal intrinsic motivations but can be at the same time a basis for institutional policies and practices.

## **Chapter IV – Methodology**

This chapter consists of six sections elaborating the methodology being applied in this study. As stated in the introduction to this study the Department of Physics and the Department of Biosciences of the Faculty of Mathematics and Natural Sciences at the University of Oslo will be the site of the research. Several studies indicate that faculty members in the ‘hard pure’ and ‘hard-applied’ disciplines show a stronger resistance to engage in the internationalization discourse than faculty members from other disciplines (see section 1.4). The first section presents the applied research design with its rationales and the case selection. This is followed by the description of the data collection and analysis process. The chapter is completed by discussing the validity, reliability, limitations, and ethical considerations of the study.

### **4.1 Research Design**

#### **4.1.1 Case Study Rationale**

The research design for the study to be conducted implies a qualitative contextual case study. This design has been chosen since a qualitative research approach is based on a constructivist or interpretivist paradigm which can be contextual, explanatory, evaluative, or generative. The qualitative approach seeks to understand lived experiences from the perspective of the participants and provides in-depth and interpreted understanding about the human side of the research object, such as perceptions, experiences, or beliefs. This approach assists the researcher in creating meaning out of social actions and experiences of a particular sampling population. The data received are rich and complex allowing detailed description of the phenomena being studied (Bryman, 2012; Maxwell & Reibold, 2015; Ritchie et al., 2014). A contextual research approach, often also called descriptive or exploratory by other authors, has been chosen since it is the purpose of this study to explore and describe social phenomena as experienced and perceived by the study population (Ritchie et al., 2014). Using a case study approach aids the author to focus on an individual unit and collect detailed information using a variety of data collection at a certain point in time, allowing an in-depth exploration and insight into the research phenomenon. A case study can be used where the understanding of a research issue needs to be holistic and contextualized (Bryman, 2012; Ritchie et al., 2014). The features of a qualitative contextual case study describe above are required and compatible when exploring the faculty member’s perceptions towards the incentives, support, and motivations facilitating faculty member engagement in internationalization.



### **4.1.2 Interview Rationale**

Face-to-face semi-structured interviews have been chosen as main method of data collection. Interviews are a useful method to generate detailed and rich data for the description and interpretation of the participant's perspective on a particular topic. They are particularly useful when it comes to in-depth explorations of person's attitude and behavior (Galletta, 2013; Ritchie et al., 2014). For the research conducted, face-to-face interviews were considered to be the most appropriate method to create a convenient atmosphere where the interviewee can respond in a free-ranging way to the questions with the possibility to raise issues and inquire about uncertainties with the researcher (Galletta, 2013; Ritchie et al., 2014). Semi-structured interviews provide the author with sufficient structure to address specific topics related to the research phenomenon as well as enough flexibility to guide the interview into a specific direction and at the same time leaving the interviewee enough space to offer new meanings to the topic of the study (Bryman, 2012; Galletta, 2013; Ritchie et al., 2014). Furthermore, this form of interview offers insight into the individual's experiences, enabling the author to explore participants' narratives of experience and views (Galletta, 2013).

### **4.1.3 Case Selection**

The Department of Physics and the Department of Biosciences of the Faculty of Mathematics and Natural Sciences at the University of Oslo have been chosen as cases in this study. Founded in 1811, the University of Oslo is Norway's oldest and most prestigious university. According to some of the main indicators used to measure an institution's level of internationalization in education, the University of Oslo is one of the country's most internationalized higher education institutions.<sup>2</sup> The number of indicators and the methods that can be used to measure an institution's level of internationalization are manifold (Brandenburg & Federkeil, 2007; Dabija, Postelnicu, & Pop, 2014). The indicators used in this study to measure the level of internationalization in education are (1) the percentage of international students enrolled at the institution, (2) the number of outgoing exchange students, (3) the number of Erasmus+ outgoing teaching mobilities, (4) the percentage of undergraduate study courses taught in English, and (5) the number of international study degrees (double, joined degrees) offered by the institution. The Faculty of Mathematics and Natural Sciences is, with about 5.800 students and about 600 academic staff members, the second largest faculty of the

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<sup>2</sup> Norsk Senter for Forskningsdata (NSD), 2016

University of Oslo with regard to student numbers and employees (University of Oslo, 2016).<sup>3</sup> The faculty consists of nine departments and seven research centers that cover a broad field of subjects within the natural sciences and technology. As research on disciplinary differences in openness and involvement in internationalization indicates (see section 1.4), both the Department of Physics and the Department of Biosciences show at the majority of the indicators a relatively low level of involvement in international education activities compared to other departments, e.g. the humanities or the social sciences. Measurements are the same indicators that were used to determine the University of Oslo's level of internationalization in education. While both departments show a good performance in (1) the percentage of international students enrolled at the departments and (4) the percentage of undergraduate study courses taught in English, both departments significantly underperform in (2) the number of outgoing exchange students, (3) the number of Erasmus+ outgoing teaching mobilities, and (5) the number of international study degrees (double, joined).<sup>456</sup>

The low level of internationalization in education at the two selected departments in accordance with the findings on disciplinary differences in openness and involvement in internationalization make the two departments an interesting case to study. In addition to the posed research questions, the author seeks to develop an understanding of the faculty members' attitudes and beliefs towards the internationalization of education and whether they are in accordance with these research findings. Since this is a novel and exploratory study, first the conduction of a small scale project seems appropriate. Furthermore, the sheer size of the Faculty of Mathematics and Natural Sciences requires a narrowing of the research focus and limitation of the number of cases that will be studied due to the limited extent of this study. In order to increase the likelihood of receiving a variety of different perceptions from faculty members from the Faculty of Mathematics and Natural Sciences within the limits of this study, a department from the 'hard-pure' and one from the 'hard-applied' disciplines was selected.

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<sup>3</sup> <http://www.mn.uio.no/english/about/facts/>

<sup>4</sup> Norsk Senter for Forskningsdata (NSD), 2016

<sup>5</sup> <http://www.uio.no/studier/emner/matnat/ibv/?filter.teaching-language=english&filter.level=bachelor>

<sup>6</sup> <http://www.uio.no/studier/emner/matnat/fys/?filter.level=bachelor&filter.teaching-language=english>

## **4.2 Data Collection**

The data used to determine the University of Oslo's and the Department of Physics' and the Department of Biosciences' level of internationalization all date from the year 2015. The majority of the data were extracted from the Database for Statistics on Higher Education (DBH) from the Norwegian Centre for Research Data (NSD). Some other data that were not available on the NSD webpage were extracted from the institution's webpage or were provided by the central international office of the University of Oslo. In order to explore the faculty members' perception towards the incentives, support, and motivations facilitating faculty member engagement in internationalization face-to-face semi-structured interviews with key faculty members from the Department of Physics and the Department of Biosciences were used as further data collection method.

### **4.2.1 Selection of Respondents**

The selection of the right sample technique is crucial for the recruitment process of significant respondents and therefore central to the outcomes of the research (Rapley, 2007; Ritchie et al., 2014). The purposive sampling technique was used to select significant respondents from the target population. In this approach, the selection of the sample unit is criteria-based, giving the author enough flexibility to choose the respondents based on their particular features or specific characteristics with relevance to the research topic (Bryman, 2012; Ritchie et al., 2014).

The target population of this study consists of about 600 academic staff members at the Faculty of Mathematics and Natural Sciences of the University of Oslo. The size of the target population and the limited extent of this study required a narrowing of the research focus. With the Department of Physics and the Department of Biosciences, one department from the 'hard-pure' sciences and one from the 'hard-applied' sciences were selected. The author contacted the section manager of the Office of International Relations and Research Support of the University of Oslo in order to introduce the purpose and design of his study, to request data relevant for the study, and to seek for assistance in recruiting relevant faculty members from the Department of Physics and the Department of Biosciences. In cooperation with the administration of the Department of Physics and the Department of Biosciences the purposive sampling technique was applied. At both departments faculty members with particular features and specific characteristics with relevance to the research topic were identified among the body

of faculty members. Since this study is exploring faculty members' perception towards the incentives, support, and motivations facilitating faculty member engagement in internationalization, previous and current active engagement and assignment in international education activities were defined as relevant features and characteristics. It is assumed that those faculty members actively engaged and assigned in international education activities are aware of and have been exposed to or are still exposed to incentives, support, and motivations facilitating their engagement in internationalization. Nine relevant faculty members were identified by the author and the administration of the Department of Physics and the Department of Biosciences. An invitation letter to participate in the study was sent to three faculty members from the Department of Physics and to four faculty members from the Department of Biosciences. From the seven faculty members invited, six agreed to participate in the interview.

#### **4.2.2 Interview Process**

All respondents participating in the conducted interviews are faculty members actively engaged in, and assigned to, international educational activities either at the Department of Physics or the Department of Biosciences. The respondents had to be willing to participate in an audio-recorded semi-structured interview that lasted between 45-60 minutes. Prior to the interviews the six faculty members who agreed to participate in an interview were provided by the author with a letter of consent stating the purpose of the research study, its voluntary nature, and the procedures that will be followed in order to protect the respondents' identities and the collected data (see Appendix I). In preparation for the interviews the author developed in consultation with his supervisor an interview guide consisting of 12 follow-up questions (see Appendix II). Before the conduction of the actual interviews a test interview was conducted with a faculty member from the Faculty of Educational Sciences in order to simulate the interview situation and to improve the interview questions with regards to their comprehensibility and order. After the test interview the interview guide was revised appropriately. All interviews were conducted face-to-face and took place over a period of three weeks in the respondents' university offices.

Each interview was organized in three segments: (1) Personal/educational/professional background; (2) Factors facilitating engagement; (3) Enhancement of engagement. In the first segment, the respondents were asked about their perspectives towards internationalization and their personal, educational, and professional background with regards to internationalization. The questions in the second segment sought information on the incentives, support, and

motivations the respondents receive from external stimuli and intrinsic motivations facilitating their engagement in the internationalization of education. The third segment sought to explore the respondents' perception towards the individual incentives, support, and motivations and how these factors facilitate and enhance their engagement.

The interview questions were aligned to the analytical framework as follows:

Elements of Analytical Framework	Questions
Internationalization of Higher Education	<p>Let us start with a general question. How do you understand internationalization of higher education? What does it mean to you?</p> <p>In what kind of internationalization activities are you engaged at your department?</p>
	<p>From which entities do or did you receive incentives in your efforts to promote international education?</p> <p>What kinds of incentives do or did you receive from these entities?</p>
Leadership	<ul style="list-style-type: none"> <li>• Inclusion in the development of the university's internationalization plans and goals</li> <li>• Appointment into international committee/advisory board</li> </ul>
Organizational Policies and Procedures	<ul style="list-style-type: none"> <li>• Disciplinary rewards</li> <li>• Recognition and promotion</li> <li>• Flexible work arrangements</li> </ul>
Investment	<ul style="list-style-type: none"> <li>• Own funding scheme for internationalization</li> <li>• Financial remuneration</li> <li>• Travel abroad</li> <li>• Additional staff</li> <li>• Reduction of teaching load</li> <li>• Provision of a substitute while abroad</li> </ul>
Training for Personal and Professional Development	<ul style="list-style-type: none"> <li>• Language courses</li> <li>• Workshops on internationalization</li> <li>• Conference participations</li> </ul>
Interdisciplinary Connection Advisory and Administrative Support	<ul style="list-style-type: none"> <li>• Administrative advisor on central, faculty, or departmental level</li> <li>• International committees/centers</li> <li>• Web portal for faculty members</li> </ul>

<p style="text-align: center;">Intrinsic motivations</p>	<p>One could argue that the natural sciences are universal and by that mean already international, what are your rationales to internationalize?</p> <p>What kind of previous personal and educational international experience did you have before you started to work in academic?</p> <p>What incentives do you receive from engaging in internationalization that do not come from an institution, such as your intrinsic motivations?</p>
<p style="text-align: center;">Engagement in Internationalization</p>	<p>Which of the incentives we talked about do you value most?</p> <p>Which of the incentives do you regard as less important?</p> <p>If there was one thing either the university, the faculty, or the department could do to enhance your engagement in internationalization, what would it be?</p> <p>How do the incentives contribute to your motivation to engage in internationalization?</p> <p>What drives you? From what do you get the most motivation from to engage in internationalization?</p>

**Table 1.** Assignment of analytical framework categories and interview questions

### 4.3 Data Analysis

Each conducted interview was audio-recorded and immediately transcribed by the author after the interview session. A directed qualitative content analysis, a common approach when prior research about a phenomenon exist, was applied (Hsieh & Shannon, 2005). In this structured approach, existing theory and prior research is used in order to determine and identify key concepts and variables as initial coding categories. The findings applying directed qualitative content analysis can offer supporting and extending evidence or non-support for an existing theory (Hsieh & Shannon, 2005). Coding, a key process in qualitative interview analysis was used to review the transcribed interviews. Coding is a tool that breaks down, labels, separates, and organizes the data into component parts of potential theoretical significance or who appear as particularly salient with regards to the research phenomenon (Bryman, 2012; Ritchie et al., 2014). Based on the research questions and the literature review the author developed the following series of analytical categories that were used as guidance during the interview coding process:

- **What are the respondents' perspectives towards and rationales for internationalization?**

By analyzing the interviews using this category the author aimed to unmask and identify common aspects and patterns in the respondents' perspectives that might contribute to their engagement and which can be associated with external stimuli or their intrinsic motivations.

- **What kind of international imprint do the respondents have with regards to their personal and educational development?**

By analyzing the interviews using this category the author further aimed to identify common patterns in the respondents' personal and educational background with regards to internationalization that might serve as an indicator for the faculty members' engagement in the internationalization of education.

- **What kind of incentives, support, and motivations do or did the respondents receive from who, and how do the respondents perceive them?**

By analyzing the interviews using this category the author aimed to explore how the faculty members experience and perceive the individual incentives, support, and motivations facilitating their engagement in the internationalization of education. The findings from applying this category shall contribute to answer the first research question.

- **How do these incentives, support, and motivations contribute to the enhancement of the respondents' engagement in the internationalization of education?**

By analyzing the interviews using this category the author aimed to elaborate how the individual incentives, support, and motivations actually enhance the faculty members' engagement. The findings from applying this category shall contribute to answer the second research question.

#### **4.4 Validity and Reliability**

Reliability and validity are central and vital concepts in any qualitative research when discussing the generalization and trustworthiness of the research findings since they concern “the robustness and credibility” of the research evidence (Ritchie et al., 2014, p. 354). Reliability refers to the replicability of the findings by other researchers when conducting the research project again in the exact same way. Validity on the other hand refers to the extent to which the research findings are well-grounded and how accurately they describe the research phenomena. One differentiates between two types of reliability and validity, an external and an internal one (Bryman, 2012; Ritchie et al., 2014).

Internal validity refers to the adequacy of the data selection and the methodology for its collection and analysis with regards to the study phenomena (Bryman, 2012). The study at hand considered this aspect by identifying key faculty members with specific criteria such as previous and current active engagement and assignment in international education activities as most relevant data source for the exploration of the study phenomena and by conducting comprehensive semi-structured interviews with them. By applying a purposive sampling technique in close cooperation with key staff in the university administration the selection of relevant faculty members was ensured. Furthermore, a draft of the interview guide was discussed in detail with the thesis’ supervisor and a test interview followed by a discussion was conducted with a faculty member from the Faculty of Educational Sciences in order to provide peer review. External validity of the study refers to the degree to which its findings can be generalized across social settings and to a wider population (Bryman, 2012). Taking into account that the study at hand explores a single case in the context of STEM disciplines at the University of Oslo, the findings are only partially generalizable to other higher education institutions due to their different external stimuli structures. However, since two different disciplines (hard-pure and hard-applied) of the Faculty of Mathematics and Natural Sciences have been explored, this study has validity for the other disciplines of the same faculty and partially for other faculties and disciplines of the University of Oslo, assumed that the external stimuli provided by the faculty and university are coherent to those provided by the Faculty of Mathematics and Natural Sciences.

Internal reliability is not an issue to this study since it refers to studies that are conducted by more than one researcher/observer and their agreement over the research findings (Bryman, 2012). External reliability on the other hand refers to the replicability of the findings when the



research project is conducted again in the exact same way using the exact same methods. This criteria, however, poses the question to what extent qualitative research studies can be accurately replicated due to the impossibility to freeze social settings, human behavior, and the circumstances of the initial study (Bryman, 2012; Ritchie et al., 2014). In order to approach this problem and enhance the external reliability of the study an accurate description of the whole research process starting with the case and participant selection, the data collection and its analysis, and a proper recording, transcription, and preservation of the conducted interviews will be applied.

#### **4.5 Limitations**

This study contains several limitations that need to be considered. As discussed in the section on validity and reliability, the selected case study design utilizing only two departments of the Faculty of Mathematics and Natural Sciences of the University of Oslo poses challenges in terms of the ability to generalize the findings and conclusions of the study. Some of the findings may have relevance for other faculties of the University of Oslo or similar institutions; however, the findings should always be considered in their specific context. By collecting more data from other disciplines or faculties of the University of Oslo or other higher education institution in other countries, the findings would be more robust and transferrable to other cases.

Secondly, although the research design includes the collection of data from several key faculty members of the Faculty of Mathematics and Natural Sciences engaged in internationalization activities, the number of perspectives included in this study is limited due to the sheer size of the faculty (about 600 academics)<sup>7</sup>. Interviews with additional faculty members presumably would have uncovered a wider range of perspective allowing a more comprehensive picture of how faculty member perceive the individual incentives, support, and motivations facilitating their engagement in internationalization and how the faculty members' engagement is enhanced.

Thirdly, the previous employment of the author of this study as administrative staff in the International offices of two higher education institutions could be considered as a limitation to this study. In this context, the role of the author is potentially biased with regards to the international dimension in higher education in general, and the role of the university

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<sup>7</sup> <http://www.mn.uio.no/english/about/>

administration and the role of faculty members in internationalization in particular. This potentially biased role of the author cannot be eliminated completely, particularly during the semi-structured interviews and the data analysis. The author attempted to limit these biases by not incorporating his personal opinions and experiences while conducting the interviews and by being aware of these biases during the data analysis.

#### **4.6 Ethical Considerations**

In many higher education institutions a certain rivalry between the university leadership with its central administration and the faculties can be found. However, particularly in the internationalization of education, the university administration and the faculties have to work closely together. Critique from faculty members towards some of these external stimuli provided by the university administration could create tensions between the academic and administrative staff on central, faculty, or departmental level and therefore be considered as an ethical issue. The author approached this ethical issue through the anonymization of all personal information and the handling of the gathered data in accordance with the Personal Data Act and the guidelines of The National Committee for Research Ethics in the Social Sciences and the Humanities (NESH)<sup>8</sup> in Norway. No personal names were mentioned in the study, only details regarding the university, faculty and department the respondents are affiliated to were mentioned where it was considered indispensable. All personal data were treated confidentially, secured, and stored in a way that they were only accessible by the author. The voluntary participation in the research project and the possibility not to answer a particular interview question or to withdraw from the interview at any time during the interview without stating any reasons further ensured that no ethical standards were violated. Furthermore, the research project was reported to, and approved by, the Norwegian Centre for Research Data (NSD).

The previous employment of the author as described in the limitations of this study (see section 4.5) could also be considered as an ethical issue. The author approached this ethical issue by applying the procedures as described in section 4.5.

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<sup>8</sup> <https://www.etikkom.no/globalassets/documents/english-publications/guidelines-for-research-ethics-in-the-social-sciences-law-and-the-humanities-2006.pdf>

## Chapter V – Research Findings and Discussion

The aim of this study is to explore how incentives, support, and motivations serve as a catalyst for faculty member engagement in the internationalization of education. A contextual research approach will be used to develop an understanding of the faculty members' perception of the individual incentives, support, and motivations and also to examine how these factors actually enhance the faculty members' engagement. This chapter presents the findings from the analysis of the interviews conducted with six faculty members followed by their discussion. Each of the sections in this chapter provides a summary of the findings from a specific topic extracted through the application of the analytical categories defined in the data analysis and used in the coding process. Direct quotations from the respondents cited in the findings are labeled with RESP-1, RESP-2 and RESP-3 for the respondents from the Department of Physics and with RESP-4, RESP-5 and RESP-6 for the respondents from the Department of Biosciences. The findings and the discussion in this chapter build the basis for answering the research questions and the conclusion in chapter VI.

### 5.1 Perspectives and Rationales towards Internationalization

In all the respondents' perspectives, science and research are by definition international, particularly in the natural sciences. All respondents disagreed with the claim of some researchers (see section 1.4) that resistance in the STEM disciplines towards internationalization derives from the fact that the natural sciences follow value-free universal principles and that there are no international perspectives on them. Some respondents emphasized that while there might not be an international perspective on the basic laws of the natural sciences, there are other important skills students and scholars from these disciplines can obtain through internationalization.

*“Well, the physics laws don't change with the borders of the countries. But you know we need to work together. If you are going to be a successful researcher it is not just being able to do the calculation and the math. You also need to be able to collaborate and to work with other people and communicate. You have to present your results. You can do very cool research but if you are not able to present it either in writing or at conferences nobody knows about it and it is sort*

*of useless. So there are a lot of other skills which are not exactly physics which students need to be successful.”(RESP-3)*

Another respondent went further by arguing that there are very well international perspectives in the natural sciences by pointing to his own discipline.

*“[...] my discipline also touches some ethical issues and societal issues and those are very much different in different places. In Biotechnology for instance there are many experiments that are illegal to perform in Norway that you can perform in Sweden. And clearly that is because there are different ethical perspectives and laws.” (RESP-6)*

All six respondents unanimously named the internationalization of education and particularly the mobility of students as the most important pillar stone of internationalization of higher education. However, the rationales as to why the internationalization of education and specifically mobility abroad are so crucial for their students varied among the respondents. The most frequently mentioned rationales were academic ones, emphasizing the importance of mobility abroad in order to provide students with new and different courses, teaching methods, and learning perspectives they would not receive at their home institute (RESP-3; RESP-4; RESP-5). Socio-cultural rationales such as the development of intercultural skills and the broadening of the students' horizons were also considered as significant (RESP-1; RESP-2). Other respondents referred to economic rationales relevant for internationalization of education by pointing to its contribution to the students' future careers by establishing international networks and by providing them with additional assets for their CVs (RESP-6; RESP-2; RESP-5). Furthermore, the respondents considered internationalization as crucial for their own research, claiming that the collaboration among scholars across national borders and in international teams and networks is essential for scholars in the natural sciences.

The respondents' perspectives towards internationalization were very consentaneous. All expressed positive attitudes towards the internationalization of higher education and considered it to be a very important and valuable contribution to the students' personal and educational development and to their own research agenda. Indifference, refusal or even resistance towards internationalization as some scholars ascribe it to faculty members from

STEM disciplines could not be confirmed. This is not only a contradiction to prior research findings but also to the findings on the general low level of internationalization in education at the Faculty of Mathematics and Natural Sciences (see section 4.1.3). The low level of internationalization in education at the faculty indicates that the respondents' general positive attitudes towards internationalization is probably not related to the specific national Norwegian context of the study or institutional factors of the University of Oslo, but instead to particular characteristics of the respondents. As stated in section 2.1.3, it is critical to understand the rationales driving faculty members to engage in the international dimension of higher education since the presence of rationales is a basic requirement for it. The respondents gave various evident rationales for internationalization. It is notable that they considered the internationalization of education, and not research, as pillar stone of internationalization. The respondents' rationales were all altruistic and student-focused, challenging the effect external stimuli such as incentives and support might have on the enhancement of the respondents' engagement. Internal stimuli such as the respondents' intrinsic motivations, on the other hand, could serve as an explanation for the respondents' rationales.

## **5.2 International Imprint in Personal/Educational Development**

One striking feature all respondents of this study have in common is their strong personal, educational, and professional international imprint and experiences. Four of the six respondents have spent considerable time abroad during their childhood, either because of their parents' employment abroad or within the framework of an educational exchange. The other two respondents have a foreign background and did not grow up in Norway but lived a large part of their lives there. Furthermore, all respondents have in common that they spent a considerable time either during their PhD or post-doc abroad and that they all speak several languages.

Whether these common patterns in the respondents' personal and educational background serve as a stimulus for their intrinsic motivations enhancing their engagement in the internationalization of education needs to be discussed. There are some indicators in the respondents' statements regarding their international imprint pointing into this direction:

*“I didn't grow up in Norway, that's an important point that clearly influences the way you perceive the rest of the world.” (RESP-1)*

*During my Master I spent five months [abroad] [...]. And I spent 18 months in the USA during my PhD. And I worked one year as a post-doc [abroad]. And I felt this has been very valuable for me and especially professionally it is important because you are getting a professional network within the field and this has been very useful. Networking and getting an international network is very advantageous for the students.” (RESP-3)*

At this point it appears to be important to refer to the selection process of the interview participants in which they were selected because of their high engagement in, and assignment with, international education activities (see section 4.2.1). The respondents’ international imprint was not a selection criterion. The consentaneous findings on the respondents’ personal and educational international imprint are an indicator that they presumably serve as a trigger or accelerator for the respondents’ intrinsic motivations. This indication is in accordance with some earlier cited research findings from Finkelstein et al. (2013), claiming the time a scholar spent abroad after the baccalaureate is the most “pervasive and powerful” predictor for his/her research to be international. Schwietz (2006) highlighted that faculty members “with higher levels of international experiences at different educational stages” show a higher level of engagement in internationalization. The exploration of the respondents’ perception towards their intrinsic motivations in the following section and the analysis of the factors enhancing the respondents’ engagement (see section 5.4) will shed further light on these claims.

### **5.3 Perception towards Incentives, Support, and Motivations**

The respondents’ perception towards the incentives and support they receive from different internal and external entities and their intrinsic motivations do not reflect a consistent picture like the respondents’ international imprints do. Also the findings among respondents from the same department vary considerably. In the following analysis the findings on the different external stimuli and intrinsic motivations facilitating faculty member engagement in internationalization will be presented in their order as they were defined in the analytical framework (see section 3.2). First, the findings for each of the seven dimensions will be presented. The comprehensive summary and discussion of them will be provided at the end of this section.

### **5.3.1 Leadership**

The findings on inspiring and authentic encouragement by the leadership as stimuli to engage in the internationalization of education were relatively inconsistent. Three of the respondents “*feel like there is general encouragement for internationalization from the university leadership*” (RESP-6) and valued it as positive influence on their engagement. The other three respondents either didn’t receive such encouragement in any form or experienced a negative attitude of the leadership towards the internationalization of education when pointing out that “*the leadership of this department is pretty absent*”, and determine wearily “*that nobody could care less.*” (RESP-1) One respondent referred to his/her experience at another higher education institution where internationalization is highly encouraged and a positive environment is created by the leadership, resulting in an increase of the contribution and output of the faculty members with regards to the internationalization of education.

### **5.3.2 Organizational Policies and Procedures**

Consistent results were found when it comes to organizational policies and procedures such as disciplinary rewards, recognition, and promotion as external stimuli to engage faculty members in internationalization. All respondents agreed that engagement in international research is expected from scholars in the natural sciences as integrational part of their career progression and is considered by the department and the faculty when deciding upon disciplinary rewards and promotion.

*“Certainly, if you want to have an academic career you have to have also an international focus and perspective. [...] So I think internationalization activities in term of having career progression, that’s an incentive.”* (RESP-6)

However, the respondents referred this stimulus only to international research. A link of organizational policies and procedures to the engagement in international education activities was only assumed by the respondents but could not be confirmed.

### **5.3.3 Investment**

All respondents emphasized the importance of financial incentives for their engagement and a significant lack of them. The three respondents receiving financial allocation for the development of cooperation including student exchange on master level, travel grants, and

teaching mobility received this support only from external entities such as the Norwegian Centre for International Cooperation in Education (SIU) or the Erasmus Mundus program and not from the University of Oslo. The respondents' perception towards these financial incentives was overwhelmingly positive as one respondent summarized:

*“SIU is the one I am using a lot, they are a magnificent entity. They could have more money, that’s the only thing I regret. You can apply for money for cooperation, so SIU works very well to me and the people are very knowledgeable and accommodating. They always answer questions properly, so I think SIU is a great thing to have.” (RESP-1)*

Other investments received by the respondents aiming to enhance their engagement in the internationalization of education such as a reduction of the teaching load received mixed feedback. Some respondents considered a reduced teaching load as very important and contributing to their engagement while others regarded this as not decisive for it. Travel grants for the initiation of new cooperation or teaching mobility were regarded as important only by a minority of the respondents.

### **5.3.4 Training for Personal and Professional Development**

None of the respondents participated in trainings for their personal and professional development in order to enhance their engagement in the internationalization in education and therefore did not have a proper perception towards them. However, the majority of the respondents received the offer to participate in such activities but didn't consider them as important or valuable for themselves.

### **5.3.5 Interdisciplinary Connection**

Likewise, none of the respondents could recall having received or offered support in interdisciplinary connection with faculty members from other disciplines as an incentive and support to enhance their engagement in the internationalization of education.

### **5.3.6 Advisory and Administrative Support**

An external stimulus all six respondents received is advisory and administrative support either on the central, faculty, or departmental level. The views regarding this stimulus were



consentaneously very positive with only some variations regarding the different levels the support was coming from. The support from the administration in setting up cooperation agreements, writing international proposal, assistance to students, and the distributions of information related to internationalization was highly valued and praised by all respondents.

*“We started the agreement and then the administration started to get involved much more. The department and the faculty have been involved a lot in developing the exchange agreements. They know all the tricks how to organize and arrange these exchange programs. For us when we get into this level where we have credit exchange and admission it is too much work for us as a faculty [member]. And we are not experts in that. Once you get the support from the administration on all levels; that is really good!” (RESP-2)*

*“The international department here is pretty good. They have been extremely helpful in setting up the agreements because it’s not easy since there are many legal aspects you have to go through.” (RESP-1)*

However, some respondents also expressed, besides the centralized administration and advisory, the need for a more personal administrative and technical support in the management of partnership programs and the assistance of international students, for example in the form of a personal student assistant.

### **5.3.7 Intrinsic Motivations**

The strongest agreement in the findings was found regarding the respondents’ consistent perception of their intrinsic motivations as important factors facilitating their engagement in the internationalization of education. These intrinsic motivations are fueled by different influences. All respondents experienced the personal contact and interaction with international students and partners either as contributing to their workplace wellbeing, interesting, or professionally valuable.

*“I think it is also personally rewarding to meet people from other places and I think it is more personally rewarding sometimes to meet international people*

*than only meet Norwegians because they have different perspectives that I find interesting. [...] It contributes to the meaningfulness of my work.” (RESP-6)*

*“So the reward is, I think, that you have contacts with international students. It is this personal contact that you get with many foreign students I found very interesting.” (RESP-4)*

*“For me it is interesting to meet students from other countries because you can learn about their background and you can ask them how things are taught at their home university and maybe there is some information you can take advantage of. [...] Taking in students makes also us more international and it shows our students that study abroad isn’t scary.” (RESP-5)*

Other respondents regarded in addition the equipment of their students with international experiences as highly rewarding and contributing to their own personal work meaningfulness when seeing the students developing and growing through internationalization.

*“I think we are offering them a better Master and PhD education by letting them go out. I feel this is important if we talk about motivation.” (RESP-3)*

*“When you see that the student you are advising and supervising how engaged they are and you see that they are excited. And later you can follow their career and you see that they are growing after their study abroad and you see that they really succeed. Then you think it is really good to do that. When you see that you can contribute to their success that is very rewarding.” (RESP-2)*

*“If you see that the students get in touch with international students, if you see they are making bonds, they have their own Facebook groups. They stay in touch when they continue with a PhD. I kept track of many of them. [...] So that bonding is fantastic to see. They are the next generation of scientists. And this absolutely contributes to my motivation.” (RESP-1)*

In some parts, the findings on the respondents' perceptions of the individual incentives, support, and motivations reflect a picture with various patterns, in other parts, they are very consistent. An explanation for this could be the fact that according to the respondents the University of Oslo provides neither on the central, faculty, nor the departmental level a standardized and uniformed system of external stimuli for the enhancement of faculty member engagement in internationalization. This makes a comparison of the respondents' perspectives towards the individual factors difficult. Some respondents were only able to speculate on the usefulness of some external stimuli to which they haven't been exposed to. Other stimuli such as **Interdisciplinary Connection**, an important variable adopted from Childress' model of '*Five I's of Faculty Engagement in Internationalization*' were not provided to any of the respondents, making a statement impossible. It became clear in the interviews that the facilitation of the respondents' engagement in internationalization through incentives, support, and motivations was highly dependent on the respondents' own efforts for external stimuli and the degree of their departments' support in this.

The strongest agreement among the respondents was found with regards to their **Intrinsic Motivation** which was consentaneously perceived as very positive and important factor facilitating engagement in international education activities. The interaction with international students and the equipment of students with international and intercultural perspectives were considered by the respondents as driving forces for their intrinsic motivation. These findings match the findings on the respondents' personal and educational international imprint (see section 5.2), valuing an international work environment, and the respondents' altruistic and students focused rationales for internationalization (see section 5.1), considering the equipment of students with new teaching experiences, intercultural skills, and career advantages as significant.

**Investments** were perceived by all respondents as important and valuable incentive for their engagement in the internationalization of education. The lack of sufficient funding and other related compensation was a complaint expressed by all respondents. These findings are consistent with the research findings on institutional barriers to internationalization, identifying insufficient investment either financially or in other forms of compensations and remunerations as most frequent barrier preventing the development of faculty member engagement in internationalization (see section 2.3.2). It is striking that those respondents receiving financial support for international education activities all received it only from external entities such as SIU or the Erasmus Mundus program; a form of fundraising that is based on their personal or

their departmental initiatives. Considering the appreciation and importance the respondents ascribed to these investments and the fact that the grants are solely provided by external entities, more financial efforts from the University of Oslo do not only seem to be highly advisable but also inevitable.

No controversies were found regarding **Advisory and Administrative Support** as an important factor facilitating the respondents' engagement in internationalization. However, this form of support was more or less taken for granted by the respondents and seen as the natural function of the university administration.

Even though it might not be apparent upon first sight when analyzing the respondents' perceptions, it appears that also **Leadership** serves as an important factor facilitating faculty member engagement. The respondents having received inspiring and authentic encouragement from the leadership consistently considered this as very valuable. Those who experienced absence or refusal of such encouragement on the part of the leadership expressed their frustration about it. This is notable, since this is the only factor respondents expressed frustration about the lack of, something they haven't expressed towards any other factor that was lacking. Furthermore, one respondent referred to positive experiences towards encouragement from the leadership at another higher education institution. Based on these findings higher education institutions should not neglect leadership as a facilitating factor, taking into account that inspiring and authentic encouragement from the leadership is a comparatively 'cheap' way for the university to facilitate faculty member engagement in internationalization.

While the majority of the respondents have received offers to participate in **Trainings for Personal and Professional Development**, none of them considered this form of support to be valuable or required for their engagement in internationalization. This attitude, however, needs to be regarded with care and generalized conclusions to other faculty members should be avoided. As the findings in section 5.2 show, all respondents in this study possess a significant personal and educational international imprint, potentially making further training in this regard unnecessary from their point of view. However, faculty members who are not in the possession of such international and intercultural experiences might consider trainings aiming to equip them with these skills to be highly valuable for facilitating their engagement in internationalization.

The consistent findings on **Organizational Policies and Procedures** as important stimuli facilitating faculty member engagement were only confirmed for the internationalization of research, while a link of these stimuli to the engagement in the internationalization of education could only be assumed but not confirmed by the respondents. Some respondents expressed their hope that their engagement in international education activities was considered when receiving disciplinary rewards and promotion. For clarification in this regard, further research is needed investigating whether disciplinary rewards, recognition, and promotion at the Faculty of Mathematics and Natural Sciences consider engagement in international education. It is worth noting that all respondents were fully aware that engagement in international research was a basic requirement for their academic career and expected from them. If universities manage to attribute this kind of implicitness to engagement in international education, more faculty members would most likely enhance their engagement.

#### **5.4 Enhancement of Engagement**

The unit of analysis in this study is the engagement of faculty members in the internationalization of education and how it can be enhanced. The exploration of the faculty members' perceptions towards the factors facilitating this engagement already gave some indicators on how the individual incentives, support, and motivations may actually enhance the faculty members' engagement. This section will now look deeper into the assessment of the respondents' motivation and enhancement towards the engagement in the internationalization of education.

The findings on how the individual incentives, support, and motivations enhance and influence the faculty members' engagement were very consistent. All six respondents explicitly named their intrinsic motivations as the strongest driving force enhancing their engagement in the internationalization of education. Only the factors contributing to the intrinsic motivations varied among the respondents, as already pointed out in section 5.3.7. Some explained their intrinsic motivations as the most enhancing factor for their engagement by referring to their own positive international experiences and the value internationalization also inheres for their students.

*“I think for me, the most important is the intrinsic motivation that I have coming from the international education myself and I think there are a lot of benefits to that and I think that Norwegian students will also benefit from international*

*experience. I want to give our students the best experience they can have and I think that would include some international experience. So that's the most important part of it.*" (RESP-6)

*"It comes from my own experience with internationalization, that's what drives me. Most of my experience is positive and that is why I think I am generally open to internationalization."* (RESP-5)

Other respondents considered the personal contacts and interaction with international students and scholars as crucial when reflecting on the most important factors enhancing their engagement.

*"This has to do with work meaningfulness. I absolutely enjoy an international/intercultural work environment."* (RESP-1)

While emphasizing the significance of intrinsic motivations for the enhancement of their engagement, the majority of the respondents simultaneously negated the importance of external stimuli such as financial remunerations and compensations.

*"If I didn't receive the reward through personal contacts I wouldn't do it."*  
(RESP-4)

*"I would say my engagement for internationalization in education as well as research is largely intrinsically motivated. I don't require a lot of incentives."*  
(RESP-6)

*"We are doing it because we want to. Because we really enjoy doing it. It is not a question of receiving a financial remuneration. We are doing it because we like it."* (RESP-2)

Some respondents, on the other hand, also highlighted the role external stimuli play as additional and intensifying stimulation and support for the implementation of internationalization activities.

*“In terms of what the university should do I think they should be helpful in facilitating it by providing scholarships and financial support if I want to travel abroad to set up an agreement. I don’t think much more is needed as part from the university.” (RESP-6)*

*“I have my own motivation. But the financial part is important. If we got more money we would do more of course. So this is a limiting thing.” (RESP-3)*

The aim of this analytical category was to analyze how the individual factors defined in the analytical framework and explored in depth in section 5.3 contribute to the enhancement of the respondents’ engagement in the internationalization of education. The findings show a unanimous approval of intrinsic motivations as the strongest driving force and most important factor enhancing the respondents’ engagement. Other factors, such as investments or advisory and administrative support were considered by the respondents as not decisive. In the respondents’ point of view these factors mainly serve as intensifying stimuli and supporting structure to increase the extent and impact of international education activities. According to the respondents these supporting factors depend on the faculty members’ intrinsic motivations and only have little influence on engagement when provided solely. These findings are in accordance with Li & Tu’s (2015) findings, claiming that both individual and environmental motivation positively impact faculty member engagement in internationalization, but that individual motivation is the more critical factor while simultaneously playing a mediating role between environmental motivation and faculty member engagement in internationalization. The findings also partially confirm Childress’ (2010) model of *‘Five I’s of Faculty Engagement in Internationalization’* as a tool aiming to empower higher education practitioners to develop faculty member engagement in internationalization, since most of its variables are designed to stimulate and develop such an intrinsic motivation among faculty members.

The findings on the respondents’ international imprints (see section 5.2) and the factors contributing to their intrinsic motivations (see section 5.3.7) indicate that the respondents’ personal and educational international experiences are the decisive determinants. It appears that the respondents’ intrinsic motivation has been developed over a long period starting before their professional career, making intrinsic motivation a relatively difficult and expensive factor to develop for higher education institutions. A way to equip faculty members who do not engage

in internationalization and who do not have an international imprint is through trainings for their personal and professional development. These trainings could come in form of travel grants to international conferences and seminars, teaching mobilities, or language courses. As the already cited study of Finkelstein et al. (2013) concluded, is the provision of graduate students and faculty members with extended cross-border experiences the safest way to internationalize the faculty members' research. Given the findings of the study at hand this is presumably also the case for the internationalization of education. On the one hand, this form of staff development can be put into practice relatively fast, while it is on the other hand a quite cost-intensive process. Another, more time-consuming, but probably less cost-intensive, way higher education institutions could pursue is the equipment of faculty members with international experiences through organizational policies and procedures such as disciplinary reward, promotion, and recruitment. If the formalization of international education as institutional priority is clearly expressed in the institutions' disciplinary reward and promotion structures, more faculty members will most likely enhance their engagement in international education activities the same way they do it in the internationalization of research (see section 5.3.2). Furthermore, through a purposeful recruitment policy considering the personal and educational international experience of faculty members as determinant, the faculty body could be more internationalized in the long term.

The unambiguousness of the findings also poses questions regarding the effectiveness of specific institutional incentives and support aiming to develop faculty member engagement in internationalization. Only relying on institutional incentives such as investment and leadership will have little influence on faculty member engagement. Considering the findings of this study and Li & Tu's (2015) recommendation that higher education institutions should rather use institutional incentives to satisfy the faculty members' individual competences and efficacy, it appears advisable that institutional incentives should be provided to those faculty members who are already engaged in the internationalization of education in order to increase the output and impact of their internationalization efforts.



## Chapter VI – Conclusion

This chapter will provide a concluding summary of the most important findings the study has identified and will answer the research questions. Furthermore, other important findings that were not addressed by the research questions but that are contributing to the research aim will be presented. The analytical contribution in form of the developed analytical framework and the empirical contribution of the study will also be discussed. The chapter will close with suggestions for further research.

### 6.1 Conclusion

As internationalization became a more and more essential component and one of the strategically most important concepts in higher education today, the critical role of faculty members in this regard came to the center of attention. Higher education research has identified the engagement of faculty members as a key approach for the success of any internationalization activity and the advancement of the international dimension. Despite the critical role faculty members play in this process, only little was known about how their engagement is facilitated and enhanced. The aim of this study was to explore how individual incentives, support, and motivations facilitating faculty member engagement in internationalization at the Faculty of Mathematics and Natural Sciences at the University of Oslo serve as a catalyst for it. A new analytical framework of *'Factors facilitating faculty member engagement in internationalization'* was developed in order to explore the research phenomenon.

The findings concerning the first research question, asking how the faculty members perceive the individual incentives, support, and motivations facilitating their engagement in the internationalization of education, showed inconsistent perceptions among the faculty members. The strongest agreement was found with regards to the faculty members' Intrinsic Motivation which was consentaneously perceived as a very positive and important factor facilitating their engagement. Other factors such as Investments, Advisory and Administrative Support, and Leadership were also perceived as integral parts and important for engagement by all faculty members. Trainings for Personal and Professional Development, on the other hand, were not considered as valuable and required. While the faculty members' perceptions of Organizational Policies and Procedures showed a consistent picture as important stimuli facilitating their engagement in international research, they could only speculate about whether these policies and procedures also consider the internationalization of education. A link to the

internationalization of education was desired by the faculty members but could not be confirmed. No results were found regarding the faculty members' perceptions towards Interdisciplinary Connection.

The findings with regards to the second research question, asking how the individual incentives, support, and motivations enhance the faculty members' engagement, show a very clear picture. Intrinsic motivations were viewed unanimously as the strongest driving force and most important factor enhancing the faculty members' engagement. Other factors were not decisive and considered mainly as intensifying stimuli and supporting structure to increase the extent and impact of international activities, while at the same time dependent on intrinsic motivations and uninfluential when provided solely. Furthermore, the findings indicate that the faculty members' international imprints presumably serve as a trigger or accelerator for their intrinsic motivations.

Besides the findings answering the two research questions, further important findings contributing to the research aim of this study were found. Since the study was conducted on faculty members from STEM disciplines, it is important to note that all faculty members unanimously showed very positive perspectives and attitudes towards internationalization, contradictory to studies indicating a resistance among faculty members from STEM disciplines, and also contradictory to the findings on the general low level of internationalization in education at the Faculty of Mathematics and Natural Sciences. One can only speculate about the reasons for this. The general low level of internationalization in education at the faculty in accordance with the findings on resistance towards internationalization from STEM disciplines gives an indication that the respondents' positive attitudes towards, and engagement in internationalization cannot be related to the national Norwegian context of the study. The same applies for specific institutional factors of the University of Oslo as explanation. A possible explanation for this might be provided by the study itself. Another important finding the study revealed is the consentaneous strong personal and educational international imprint all respondents showed. However, whether the respondents' positive attitude towards internationalization is related to their international imprint, was not explored in this study and needs to be further investigated.

Another academic contribution provided by this study is the developed analytical framework, which was an important tool guiding the data collection and analysis process of the study and which demonstrated its applicability by reaching the study purpose. Based on a model for the institutional development of faculty member engagement in internationalization from

the higher education literature, the new analytical framework brought in an employee engagement concept from the general management, psychology, and organizational behavior disciplines. This combination proved to be very useful and valuable for the study since elements from the employee engagement concept contributed particularly to the factor inquiring the faculty members' Intrinsic Motivations. As the findings of the study show, the Intrinsic Motivations turns out to be the most important factor facilitating and enhancing the faculty members' engagement in internationalization. During the data collection and analysis process no other factors emerged that could be added to the framework. The main factors of the new analytical framework can also be applied for enquiring other forms of staff engagement in higher education settings than internationalization. However, the detailed definition of each individual factor as provided in section 3.2 would have to be adjusted.

The results of this study indicate that personal and educational international and intercultural experiences are an important contributing factor shaping faculty members' intrinsic motivation. Intrinsic motivation in turn is the strongest driving force for the enhancement of faculty member engagement. The development of intrinsic motivation is a relatively difficult and expensive undertaking for higher education institutions. Training and development of faculty members aiming to equip them retroactively with international and intercultural skills through extended cross-border experience could be one approach. Additional encouragement through a disciplinary reward and promotion structure incentivizing engagement in international education activities could increase this effect. Since the internationalization of faculty members does not start with their professional career, but with their personal and educational development, higher education institutions should consider an adaptation of their organizational policies and procedures. Through a purposeful recruitment policy considering personal and educational international experience as determinant, the faculty body could be more internationalized in the long term. Furthermore, the results underpin some findings of other research studies indicating that only relying on external incentives such as investment will have little influence on faculty member engagement in the internationalization of education. It appears advisable that higher education institutions rather provide their institutional incentives to those faculty members who are already engaged in, and assigned with the international education activities in order to increase the extent and impact of their internationalization efforts.

## **6.2 Scope for Further Research**

This study has contributed further perspectives to a better understanding of how incentives, support, and motivations serve as a catalyst for faculty member engagement in the internationalization of education by looking in-depth into the perceptions of six faculty members from the STEM disciplines towards these individual factors. The analytical framework developed in this study could be used in other studies in order to explore the perceptions of faculty members from non-STEM disciplines which would contribute further important perspectives to the research topic. Furthermore, an exploration of the perceptions of faculty members who are not actively engaged in, and assigned to international education activities or who show distinct resistance towards them would add new views and contributions to a better understanding of the effects of the external stimuli and the faculty members' intrinsic motivations. Last but not least, the analysis of the same phenomena at another higher education institution, possibly with a standardized and uniformed system of external stimuli facilitating faculty member engagement in internationalization could reveal further important aspects and implications for the improvement and adaptation of organizational policies and efforts aiming to enhance faculty member engagement in internationalization.

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# Appendices

## Appendix I: Participant Invitation Letter + Consent Form

### **Invitation to participate in a research project on faculty member engagement in internationalization in higher education**

Dear Prof...,

Thank you very much for your willingness to participate in an interview conducted as part of my master thesis work. My name is Benjamin Held and I am a student of the Higher Education Master at the Faculty of Educational Sciences at the University of Oslo (UiO). My master thesis focuses on faculty member engagement in internationalization at the Faculty of Mathematics and Natural Sciences at UiO. In my study I want to explore how incentives, support, and motivations facilitate and enhance faculty member engagement in internationalization. My research will be conducted on the Department of Physics and the Department of Biosciences at UiO and will focus on international education only and not on research activities.

Methodologically, the thesis will be based on semi-structured interviews with six (6) faculty members who are highly engaged in, and assigned with international education activities at their department. The interview will last between 45-60 minutes. You will be asked a series of questions related to your experiences as a faculty member with regard to incentives, support, and motivations facilitating your engagement in internationalization. For the sake of securing correct information I would like to record the interview if you voluntarily agree on this. The data will be used for the purpose of research for my master thesis only. The information will be handled in accordance with the Personal Data Act. Your personal name will not be mentioned in my thesis, but details on the university, faculty and department you are affiliated to will be mentioned where it is considered indispensable. As a point of reference regarding the interview, you will be referred to as the "interviewee", not by your personal name.

#### **What will happen to the information about you?**

All personal data will be treated confidentially. Data will be accessible only by me and my supervisor, as long as the study lasts, and everything will be secured under password.

The project is scheduled for completion by the latest end of September 2017. After the completion of the Master thesis all data will be deleted.

#### **Voluntary participation**

It is voluntary to participate in the research project and you may choose not to answer a particular question or withdraw from the interview at any time without stating any reason.

If you have any questions concerning the research project, please contact me:

Benjamin Held

Phone number: (+47) 46 57 37 57

E-mail: [benjamch@student.uv.uio.no](mailto:benjamch@student.uv.uio.no)

Or my supervisor:

Mari Elken

Phone number: (+47) 41 04 40 82

E-mail: mari.elken@nifu.no

The study has been notified to the Data Protection Official for Research, NSD - Norwegian Centre for Research Data.

**Consent for participation in the study**

I have received information about the research project and I am willing to participate

-----  
(Signed by participant, date)

In order to secure correct information, I agree that the interview will be recorded:

Yes

No

## Appendix II: Interview Guide

### Interview guide

The Interview is separated into three segments: First, I am going to ask you several questions about your personal, educational, and professional background with regards to internationalization. In the second segment you will be asked about incentives, support, and motivations facilitating faculty member engagement in internationalization. In the last segment I am going to ask you how these incentives, support, and motivations influence and enhance your engagement in internationalization.

You will be asked about ‘incentives, support, and motivations’. This term is defined as all external stimuli such as financial and non-financial compensations, administrative and advisory support, encouragement, and other organizational efforts provided by the university or external entities as well as your intrinsic motivations facilitating your engagement in international education activities. For the sake of convenience I will refer to them in the questions just as ‘incentives’.

#### Personal/education/professional background

1. Let us start with a general question. How do you understand internationalization of higher education? What does it mean to you?  
(e.g. core areas, activities etc.)
2. One could argue that the natural sciences are universal and by that mean already international, what are your rationales to internationalize?
3. What kind of previous personal and educational international experience did you have before you started to work in academic?  
(e.g. foreign background / special language proficiencies / lived, travelled abroad / participation in study abroad or an international study program etc.)
4. In what kind of internationalization activities are you engaged at your department?  
(e.g. student/teaching exchange / int. of the curricula / int. research collaborations etc.)

#### Factors facilitating engagement

##### External stimuli

5. From which entities do or did you receive incentives in your efforts to promote international education?  
(e.g. the university / faculty / department / external sources like SIU, Norwegian Research Council etc.)

6. What kind of incentives do or did you receive from these entities?

- Encouragement/appreciation by the leadership: Inclusion in the development of the university's internationalization plans and goals; nomination into international committee/advisory board
- Career development: Disciplinary rewards, recognition, and promotion; flexible work arrangements
- Compensation/remuneration: Own funding scheme for internationalization, financial remuneration; travel abroad; additional staff; reduction of teaching load, provision of a substitute while abroad
- Training: Language courses; workshops on internationalization; conference participations
- Administrative/advisory support: Administrative advisor on central, faculty, or departmental level, international committees/centers, web portals for faculty members

#### Intrinsic motivations

7. What other incentives do you receive from engaging in internationalization that do not come from an institution, such as your intrinsic motivations?

(e.g. work meaningfulness; workplace wellbeing)

→ through international/intercultural work environment; application of language proficiencies etc.

#### **Enhancement of engagement**

8. Which of the incentives we talked about do you value most?

9. Which of the incentives do you regard as less important?

10. If there was one thing either the university, the faculty, or the department could do to enhance your engagement in internationalization, what would it be?

11. How do the incentives contribute to your motivation to engage in internationalization?  
(Did you change? Did your work become more or less international over the years?)

12. What drives you? From what do you get the most motivation from to engage in internationalization?