ACADEMIC LEADERSHIP DEVELOPMENT:

AN EXPLORATORY STUDY ON THE IMPACTS AT THE INSTITUTIONAL LEVEL BASED ON AN ERASMUS+ CAPACITY BUILDING PROJECT

Authors

Ngoc Bich Khuyen Dinh [1], Chang Zhu[1], Aysun CALISKAN [1], and Zhao Cheng [1]

[1] Vrije University Brussel, Belgium

Abstract

This study examines the impacts of the higher education (HE) academic leadership development program at the institutional level based on an Erasmus+ capacity building project. The project involved academic leadership training in over 3 years through workshops and training programs. After two years of project implementation, the mid-term impact was assessed through surveys and semi-structured interviews. Among the participants who have joined the project program for more than 12 months, 92 participants voluntarily took part in the online survey. Of those, 21 participants were involved in the semi-structured interviews. A mixed-methods approach was exploited to answer the research questions. The findings indicated positive impacts of the program on different aspects including cross-institutional networking, collaboration, partnership, HE-related policy development and practices. The study provides empirical evidence of how the academic leadership development program contributes to helping academic institutions broaden their connection and partnership in order to achieve the institutional goals of development and innovation. The research findings are useful for policymakers, university administrators and related stakeholders. Furthermore, the approaches of academic leadership development program exploited in the current study can be applied widely in different contexts.

1. Introduction

Over the last decades, higher education institutions (HEIs) worldwide have undergone radical challenges that push them to find alternative solutions to maintain their reputation and promote innovation. According to Antoine & Van Langenhove (2019), the ongoing dilemmas include the scarcity of resources, competition over research profiles, shifting demographics, and increasing regulation and scrutiny. In addition to this, the pressure of adapting the market-driven policies while maintaining the unique norms and values of academia is another challenge faced by the HEIs. Under this challenging context, the success of the universities mainly depends on institutional governance and the vital roles of academic leaders at all levels to work coherently and ensure transparency in practices and communications (Zhu & Zayim-Kurtay, 2018).

This study involves higher education stakeholders from different contexts, mainly with European and Chinese universities under an Erasmus+ capacity building project. Under the umbrella of EU supported programs, there are a number of cooperative projects involving European and Chinese HEIs. For example, the EU-China DOC project from 2013-2016, the LEAD project from 2015-2018, and the LEAD2 project from 2019-2023. The LEAD2 project launched in the beginning of 2019 aims to enhance Chinese and European academic leadership capacity building for university governance and academic leadership development. Following the valuable outcomes of the previous collaborative programs, the LEAD2 Erasmus+ program on capacity building for academic leadership involves 12 European and Chinese universities. It offers broad opportunities for capacity building, collaboration, partnership and policy dialogue among relevant stakeholders. The main aim of the project was not only to enhance the capacities for academic leaders and staff individually, but also to promote collaboration, partnership regarding university governance and academic leadership at the institutional level. Regardless of the advantages and benefits of existing institutional collaboration between the two sides, there is insufficient theoretical and empirical knowledge that support

the development and collaboration between Chinese and European institutions regarding university governance and academic leadership (Zhu et al., 2017; Zhu & Zayim-Kurtay, 2018). To the best of the authors' knowledge, there is no study examining the impacts of the cooperation projects between European and Chinese institutions at the organizational level in the available literature. Nevertheless, several studies suggest further research examining the collaboration between European and Chinese universities to uncover relevant issues for strengthening mutual understanding and further collaboration between the two sides (Cai, 2019; Zhu et al., 2017; Zhu & Zayim-Kurtay, 2018).

Furthermore, several studies called for comparative analysis in academic leadership development (Bolden et al., 2012; Liu, 2019; Zhu & Zayim-Kurtay, 2018) and the impacts of leadership training at the organizational level (Subramony et al., 2018; Wallace et al., 2021). Against this background, the current study aimed to examine the impacts of a specific project under the Erasmus+ program concerning university governance and leadership development involving European and Chinese HEIs. The two main questions are as follows:

1) What are the perceived impacts of the HE academic leadership development program on the involved European and Chinese HEIs regarding collaboration and partnership?

2) What are the perceived impacts of the HE academic leadership development program on the involved European and Chinese HEIs regarding HE-related policy and practices?

2. Literature review

2.1. Conceptualization of leadership, leadership development, and academic leadership

The notion of leadership has been widely conceptualized in the last few decades based on different perspectives (Day, 2001; Day et al., 2021; Liu, 2019; McCauley & Palus, 2021). In the current study, we define leadership as a result of collaborative activities within a group of people to achieve organizational goals and visions (Day, 2001; Liu, 2019).

In the last few decades, the dominant approach to leadership development has emphasized the construction and development of individual skills, competencies, and behaviors addressed to leaders. Not surprisingly, training design and evaluation criteria are dominantly skill-based and competency-based (Black & Earnest, 2009; Kellogg Foundation, 2002; Kirkpatrick, 1994). Nevertheless, recent studies point out that leadership development in the 21st century would not only focus on skill and competency enhancement for leaders but also underline the development of collective leadership within and across teams or organizations (Day et al., 2021; Liu, 2019). In other words, such leadership development program equally promotes leader development and leadership development is highlighted (Day et al., 2021; Liu, 2019; McCauley & Palus, 2021). This approach to leadership development was adopted in the current study.

According to Grunefeld et al. (2015), the notion of "academic leaders" traditionally refers to people who hold an academic leadership position, such as deans, department chairs, directors. However, recent studies also mention informal leaders who are academics and hold informal leadership positions who take lead in project groups or small research teams (Dinh et al., 2021; Grunefeld et al., 2015; Marquis et al., 2017). In the current study, we refer "academic leaders" to academic leaders who have formal academic leadership positions in university and to academic staff in both formal and informal leadership functions with a responsibility for research and teaching.

2.2. Leadership development in higher education context

A large number of studies indicate the importance of HE leadership development toward quality enhancement and innovation within academic institutions (Dinh et al., 2021; Ladyshewsky & Flavell, 2011; Marquis et al., 2017). In addition to this, leadership in academic settings is more complex than in other disciplines due to the needed academic freeform and autonomy in knowledge construction and dissemination (Liu, 2019). Furthermore, the rapid and vigorous changes occurring within universities over the last few decades have led to substantial changes in the role and responsibility of academic leaders (Sewerin & Holmberg, 2017; Author et al., 2018). In the new context, university leaders are required to be more distinctive, cooperative, and flexible in order to deal with the inherent complexities of administration, finance, academia, etc., in managing the institution (Pani, 2017). Unfortunately, previous studies have

reported on the lack of competencies and skills academic leaders require (Garwe, 2014; Parrish, 2015). Consequently, academic leadership development that strongly supports leaders and staff in enhancing their leadership capacities is highlighted in several articles of research (Jooste et al., 2018; Ladyshewsky & Flavell, 2011; Pani, 2017; Tran & Tran, 2020). In addition to this, recent studies found that distributed leadership and transformational leadership are among the most suitable and common leadership styles that exist in academic institutions (Dinh et al., 2021; Liu, 2019). Thus, academic leadership development focusing on human capital and social capital enhancement is recommended (Day et al., 2021; Dinh et al., 2021; Zulfqar et al., 2021).

2.3. The HE academic leadership development design

The leadership training program exploited in the current study is a continuing leadership development intervention which started in January 2019. **Figure 1** depicts the program design. The main target groups of the program include European and Chinese academics and academic leaders from 12 partner universities. Adapted three theoretical training approaches (leadership as system competence, leadership as individual competence, and leadership as relational competence), the program content is emphasized under three main themes: university governance, academic leadership, networking and collaboration. Concerning the training format, the program offers annual training and workshop series, from face-to-face to online training format. In addition, the online knowledge base was designed to provide training materials and resources on university governance and academic leadership. A networked community was established where participants could share practical experiences and broaden their professional network. Altogether, the program was aimed to achieve the ultimate goals of enhancing competencies for academic leaders individually (human capital) and promoting collaborative leadership development within, across and beyond their institutions (social capital).
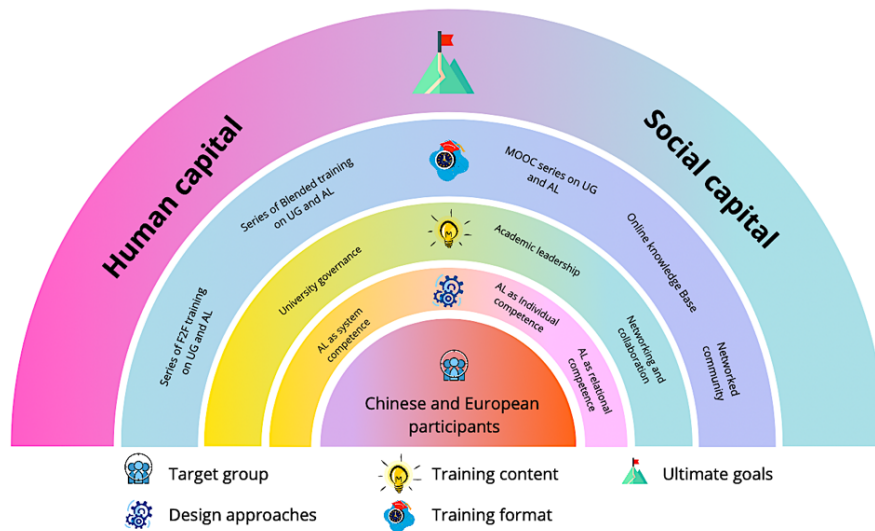
**Figure 1.** ALD training design

2.4. Evaluating (mid-term) impacts of the leadership development training

2.4.1. Theoretical framework

Concerning the evaluation framework in evaluating leadership training programs, the most influential model is the Kirkpatrick's evaluation taxonomy with four-level assessment criterion: i) reactions (the extent to which learner satisfy with the course), ii) learning (the extent to which learner masters knowledge and skills), iii) behavior (the extent to which learner transfer knowledge, skills obtained to the workplace), iv) and results (the extent to which leaner's organization has been impacted by learner's application of the training in the workplace) (Kirkpatrick, 1994; Kirkpatrick & Kirkpatrick, 2006; Ries, 2019). In order to gain deeper insights into how leadership training influences an individual's knowledge, skills, competencies, some other evaluation models were introduced, such as the Logic Model, EvaluLEAD, Theory of Change (Black & Earnest, 2009; Kellogg Foundation, 2002). For example, the EvaluLEAD conceptual model (Black & Earnest, 2009) consists of nine learning outcomes for the individual,

organizational, or social domains. In the research exploring the impacts of 55 community leadership training programs, Kellogg Foundation (2002) found the five most common outcomes at the individual level: changes in knowledge, skills, and perceptions; changes in values and belief; changes in behavior; leadership path; relationships.

Regardless of the advantages provided by existing evaluation models, the common drawback of these frameworks is that they do not fully capture the multidimensional nature of learning and mainly focus on individual outcomes (leader development) while not considering the role of collective outcomes (leadership development) (Wallace et al., 2021). To fill this gap, Wallace et al. (2021) suggested a comprehensive evaluation model (**Figure 2**) that provides guidelines for evaluating a leadership development program in which both human capital goals and social capital goals are emphasized.
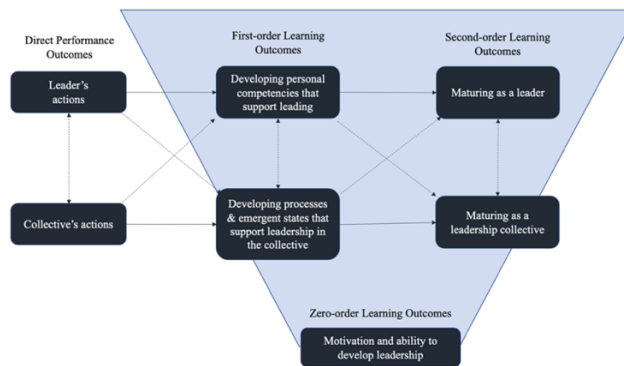
Figure 2. Evaluation model of leader and leadership development learning outcomes (Wallace et al., 2021)

As seen in **Figure 2**, the evaluation framework consists of the direct and indirect performance outcomes resulting from leadership actions, either at the individual level or collective level. The first-order (individual- level) learning outcomes is defined as the changes in knowledge, skills, and abilities in individuals, or emergent stages and process in collectives, that enable leadership. The second-order (collective-level) learning outcomes is conceptualized as the product of maturation processes that lead to the changes in leadership identities and epistemologies. As a collective phenomenon, leadership development accordingly refers to collective development at multilevel, from the dyad to the organization, or the society at large (Wallace et al., 2021). Finally, the zero-order learning outcomes provide the foundation of leader and leadership development that support learning across the model. In the present study, we mainly focused on collective-level outcomes. The individual-level outcomes will be emphasized and examined separately in another study.

2.4.2. Research gaps regarding impact evaluation of leadership development program

Evaluation of the leadership development program plays an essential role as they provide a key indication of training quality. Although there are a significant number of studies investigating the effectiveness and impacts of the leadership program (Dopson et al., 2018; Ladyshewsky & Flavell, 2011; Liu, 2019), there are several limitations that exist in the available literature.

First, there is a shortage of research evaluating the mid-term impacts of the leadership development program. The majority of the studies on evaluating leadership development programs are mostly limited in measuring learners 'satisfaction and learning because these measurements can be easily implemented at the end of the given leadership development programs or immediately after the training courses (Grunefeld et al., 2015; Joseph-Richard et al., 2020; Ladyshewsky & Flavell, 2011; Ries, 2019). Little effort has been spent on evaluating the outcomes and impacts of the leadership training programs in mid-term and long-term periods due to high costs and the efforts involved (e.g., post-course interactions with learners) (Joseph-Richard et al., 2020; Ries, 2019). Nevertheless, several studies on leadership development indicate that effective leadership programs are more likely to have long-term positive results (Grunefeld et al., 2015; Joseph-Richard et al., 2020; Ladyshewsky & Flavell, 2011; Ries, 2019). Therefore, Joseph-Richard et al. (2020) call for investigations on the impacts of leadership development programs adopting a time-sensitive approach. In the current study, we define impacts as a measure of changes in mid-term or long-term periods that results from participating in a leadership program or a measure of program effectiveness in achieving ultimate goals (Ladyshewsky & Flavell, 2011; Ries, 2019).

Second, little effort in the available literature has been spent on evaluating the outcomes of leadership training at the institutional level. While several pieces of research provided insights into the impacts of the leadership development programs at the individual level (Dopson et al., 2016; Evans, 2014; Ladyshewsky & Flavell, 2011), there is a scarcity of studies on evaluating the effectiveness of the programs at the organizational level (Subramony et al., 2018). Nevertheless, several studies indicate that the impacts of the leadership development programs could be reflected in individual, professional, or organizational contexts (Kellogg Foundation, 2002; Ries, 2019). Therefore, the present study mainly focused on the impacts of the HE academic leadership development program at the institutional level.

Third, there is a lack of complex leadership training evaluation studies. Over the last decades, the majority of leadership development programs have emphasized sharpening individual skills and behavior addressed to leaders. Consequently, training design and evaluation criteria are commonly skill-based and competency-based (Black & Earnest, 2009; Kellogg Foundation, 2002; Kirkpatrick, 1994). However, recent studies highlight the importance of complex leadership development programs, which consists of two major components: (i) the intrapersonal dimension which focuses on promoting human capital including cognitive and behavioral skills that a leader acquires; and (ii) the interpersonal dimension which concern the enhancement of group's social capital and engagement in order to achieve mutual goals and institutional values (Day et al., 2021; Liu, 2019; Subramony et al., 2018). Unfortunately, studies examining the impacts of such a complex leadership program remain under-researched in the available literature (Subramony et al., 2018).

3. Method

The research was implemented under the framework of an Erasmus+ project on capacity building for EU-China higher education institutions. As part of the project, survey investigation and semi-structured interviews were conducted with an emphasis on evaluating the mid-term impacts of the HE academic leadership development programs (as described in section 2.2) on participating institutions regarding collaboration and partnership as well as HE-related policies and practices.

Concerning the measurement instruments, a 24-item questionnaire was developed in both Chinese and English. Back translation was implemented in order to ensure the equivalent meanings of the two versions. The interview questions were designed based on the survey. The questions were also translated into Chinese and back-translated into English to ensure the equivalent meaning. To collect evidence on the validity and reliability of the designed instrument, a pilot study using a small subset of survey participants and interviewees was implemented.

The survey data collection was conducted via Qualtrics™ research tool and open for 90 days, between December 2020 and February 2021. An invitation email was sent to all participants who joined the program for more than 12 months, followed by two reminder emails spaced three weeks apart.

As for qualitative data, semi-structured interviews were conducted from December 2020 to February 2021. The interview questions were parallel with the questions of the quantitative data collection. The interviews with Chinese participants were implemented by researchers who are native speakers. Each interview lasted on average 34,40 min (min. 24 and max. 50 min).

The data analysis procedure consisted of three main steps: (i) quantitative data analysis (online survey); (ii) qualitative data analysis (interviews); (iii) mixed-method analysis to examine how the qualitative findings supported, contradicted, broadened, or deepened the quantitative findings (Creswell, 2009).

Concerning the quantitative analysis part, data analysis was performed using SPSS (Version 28). Descriptive statistics and independent sample t-tests were calculated for all variables in order to analyze the impacts of the academic leadership development. As for qualitative analysis, the interview data were first transcribed verbatim. Afterwards, content analysis was utilised in this study as it is a suitable method for analysing data in a written and verbal format (Erlingsson & Brysiewicz, 2017). It was also used to explore the narrative themes, summarise the main ideas, and make valid inferences (Krippendorff, 2004). An inductive approach was adopted regarding how the code and the following categories and themes emerged from the data (Merriam, 2009). With regard to the mixed-methods analysis, given that participants' perceptions of personal growth and professional practices after joining the training programs

were emphasized in both the online survey and the interviews, the qualitative results on both aspects were linked to the quantitative findings to provide deeper insights into the impacts of the training programs (Creswell & Clark, 2010).

4. Findings

In total, 92 respondents voluntarily participated in the survey. Of these, 41.3% were male and 58.7 were female. The age distribution of the survey respondents ranged between 23 and 70 (M=40.67; SD=12,39). The survey included 45.1% of the participants with less than 5 years of academic leadership experience and 44.1% of the respondents with more than 5 years of leadership experience. More details of the respondents' demographic information can be found in **Appendix 1**.

The qualitative dataset comprises 21 participants with mixed cultural backgrounds, including Europe and China. Among the interviewees, 57.1% were male and 42,9% were female. The age distribution ranged from 32 to 70 (M=47.38; SD=10.37). More details of the interviewees' profiles can be found in **Appendix 2**.

RQ1. Perceived impacts of the HE academic leadership development program on involved European and Chinese HEIs regarding cross-institutional networking, collaboration and partnership

The quantitative findings reveal the high extent regarding the impacts of the HE academic leadership program on cross-institutional networking and collaboration perceived by the involved European and Chinese respondents (**Table 1**). The results indicated the high level of agreement perceived by both groups regarding the positive effects of the program on partnership among participating universities (M=4.18; SD=.74 and M=4.25; SD=.87, respectively). Of this, the Chinese respondents reported a lower level of program impacts on partnership than European respondents. However, the difference is non-significant (t=.435; p> .05). On the contrary, the Chinese respondents reported relatively higher levels regarding the impacts of the HE leadership programs on building contacts (M=4.33; SD=.60 vs M=4.18; SD=.87), enhancing mutual understanding (M=4.41; SD=.67 vs M=4.40; SD=.88), strengthening the trust among partner universities (M=4.27; SD=.64 vs M=4.13; SD=.93), the differences between the two groups are non-significant (t=-1.030; p> .05; =-0.73; p> .05; =-.904; p> .05 respectively).

Table 1. Impacts of the HE academic leadership development programs on building cross-institutional networks among European and Chinese HEIs

	Chinese participants		European participants			
	Mean	*SD*	*Mean*	*SD*	*t*	*Sig.*
The program positively affected partnerships among all participating universities	4.18	.74	4.25	.87	.435	.664
The program contributed to building contacts among partner and non-partner institutions	4.33	.60	4.18	.87	-1.030	.306
The program enhanced mutual understanding among stakeholders	4.41	.67	4.40	.88	-.073	.942
The program contributed to strengthening the trust among partner and non-partner institutions	4.27	.64	4.13	.93	-.904	.368

As for the impacts on raising awareness of diversification of university governance and academic leadership among stakeholders, both groups generally reported to the high level that the programs helped the stakeholders better informed about the commonalities and differences regarding university governance and academic leadership, raised the awareness of the importance and enhanced understanding of university governance and academic leadership among partner universities (**Table 2**). In comparison between the two groups, the Chinese respondents reported higher awareness of the commonalities and differences regarding university governance and academic leadership (M=4.47; SD=.54 vs M=4.35; SD=.80) and a higher extent toward the impacts of the programs on enhancing understanding of the diversification of the academic leadership practices in the academic setting (M=4.41; SD=.61 vs M=4.35; SD=.89). In contrast, the European participants showed slightly higher awareness level regarding the importance of university

governance within partner universities (M=4.47; SD=.84 vs M=4.35; SD=.71) and stakeholders' understanding of the diversification of university structures (M=4.50; SD=.78 vs M=4.43; SD=.73). However, all of the differences between the two groups are non-significant (p>.05).

Table 2. Impacts of the HE academic leadership development programs on raising awareness of diversification of university governance and academic leadership among European and Chinese HEIs

	Chinese participants		European participants			
	Mean	SD	Mean	SD	t	Sig.
The program made the stakeholders better informed about the commonalities and differences regarding university governance and academic leadership	4.47	.54	4.35	.80	-.854	.396
The program promoted the awareness of the importance of university governance within partner universities	4.35	.71	4.47	.84	.745	.459
The program enhanced stakeholders' understanding of the diversification of university structures	4.43	.73	4.50	.78	.431	.667
The program enhanced stakeholders' understanding of the diversification of academic leadership practices in universities	4.41	.61	4.35	.89	-.392	.696

With regard to the impacts of the HE academic leadership development program on across-institutional collaboration among European and Chinese institutions, the findings showed a high level of agreement between the two groups. The Chinese participants indicated a relatively higher level of perceptions regarding the impacts of the project on providing insights into collaboration areas between the European and Chinese participants on university governance and academic leadership (M=4.45; SD=.61 vs M=4.38; SD=.86). Similarly, the Chinese counterpart reported higher level of agreement on how the project contributed to promoting the effective practices of international collaboration among partner and non-partner universities (M=4.27; SD=.77 vs M=4.20; SD=.91). However, the differences between the two groups are insignificant (t=-.490; p> .05; =-.421; p> .05 respectively)

Table 3. Impacts of the HE academic leadership development program on across-institutional collaboration among European and Chinese HEIs

	Chinese participants		European participants			
	Mean	SD	Mean	SD	t	Sig.
The program provided the stakeholders more insights into collaboration areas between the EU and China on academic leadership and university governance	4.45	.61	4.38	.86	-.490	.625
The program promoted effective practices of international collaboration on academic leadership among partner and non-partner universities	4.27	.77	4.20	.91	-.421	.675

Consistent with the quantitative findings, the qualitative results illustrate the significant impacts of the HE academic leadership development programs on cross-institutional collaboration and partnership (**Table 4**). The results emerged three main themes for the Chinese sample. Based on the frequency analysis, the most frequent theme cited by the Chinese participants is building organizational networks under which five subthemes accumulated. To be specific, Chinese interviewees perceived that the HE leadership development program had significant impacts on enhancing mutual understanding and building trust among partner universities as well as on establishing international contact. In addition, the contribution of the program to achieving shared goals and visions was cited as essential under the main theme. Especially, two unique subthemes including building domestic contact and enhancing reputation were found under the most cited theme. In other words, Chinese participants highlighted the positive effects of the leadership program on developing a close connection among local universities and promoting institutions' profiles.

The impacts of the HE academic leadership development program on opportunities for cross-institutional collaboration and partnership was another theme mentioned. Under this theme, chance for cross-institutional collaboration was cited most while specific collaboration activities including cooperation in research, educational exchanges, professional development were also given the vital roles.

As the third important effects of the HE academic leadership program, two main categories were framed under the theme of awareness of the importance and diversification of university governance (UG) and academic leadership (AL). While diversification of UG and AL was most cited, the awareness regarding the importance of the UG and AL was also highlighted by several Chinese interviewees.

Regarding the responses of European participants, three main themes, that are common with the Chinese group, were framed. The most cited theme was building organizational networks, which includes three sub-themes. Enhanced mutual understanding and building trust was the core dimension under this theme while establishing contact and achieving shared goals also appear to be vital impacts perceived by European participants.

Four sub-themes were identified in terms of the impacts on opportunities for cross-institutional collaboration and partnership. Of these, chance for collaboration (in general) come to the fore as the most cited dimension, followed by collaboration in research, educational exchanges, and professional development.

Two categories were highlighted concerning the theme of awareness regarding the importance and diversification of UG and AL. Awareness of diversification of UG and AL was the most cited category under this theme.

Table 4. Impacts of the HE academic leadership program on collaboration and partnership (qualitative results)

Themes	Categories emerged	Frequencies	%	Most frequent codes
Project participants from Chinese HEIs				
Building/ Broadening organizational networks	Enhanced mutual understanding+ Building trust	19	14.8	Bridging two geographical regions; bridging differences; understanding of the two sides; mutual trust; mutual recognition.
	Establish international contacts	17	13.2	Long-term relationship; building close ties; building network; organizational network; enhanced partnership; international network
	Achieving shared goals/visions	9	7.0	Shared lessons on leadership; solving shared governance & leadership challenges; internationalization goals achievement; mutual achievement.
	Strengthening domestic contacts	8	6.2	Contact with local universities; domestic networks; domestic partners
	Enhancing reputation	3	2.4	Promoting institutional profile; enhanced reputation
Opportunities for Cross-institutional Collaboration & partnership	Chances for cross-institutional collaboration (in general)	17	13.2	International collaboration; EU-China collaboration; multilateral collaboration; EU-China cooperation; duo collaboration; transnational collaboration; cross-border HE cooperation; regional collaboration; bottom-up vs top-down approaches to collaboration

	Collaboration in research	16	12.5	Research on UG and leadership; comparative studies; EU-China policy-related research; collaborative research
	Collaboration in Educational exchanges	13	10.2	Joint training for postgraduate students; incorporate training; supervision; study visits
	Collaboration in Professional training	3	2.4	Joint leadership development training; capacity building program
Awareness of the importance and diversification of UG and AL in universities	Diversification	20	15.6	EU HE governance system; Chinese HE governance system; different governance systems; awareness of the systematic differences (C11,3)
	Importance	3	2.4	Raised awareness of leadership development; attention to UG and AL
Project participants from European HEIs				
Building organizational networks	Enhanced mutual understanding Building trust	20	24.0	Enhanced mutual understanding; bridging differences; bridging two geographical regions; building concrete agreements; two different understanding together
	Establish contact	9	10.8	Established connection; enlarged network; institutional level networking; building close ties; building relationship
	Achieving shared goals/visions	8	9.6	Shared governance & leadership challenges; developing solutions together; coexisting challenges; internationalization goals achievement; common issues
Opportunities for Cross-institutional Collaboration & partnership	Chances for collaboration (in general)	14	16.8	Collaborative governance and leadership; international collaboration; collaborative partnership; institutional collaboration; EU& China partnership; partnership with Chinese universities
	Collaboration in research	7	8.4	Studies on UG & leadership; comparative studies; EU-China policy-related research; academic contribution; scientific network
	Collaboration in Educational exchanges	6	7.2	Joint training; shared credit system; mutual recognition of diplomas; international

				student mobility; mobile students; educational network.	
	Collaboration in Professional training	4	5.0	Joint leadership development training; joint capacity building programs; staff development	
Awareness of the importance and diversification of UG and AL in universities	Diversification	11	13.2	Centralized system; Chinese HE governance system; European HE governance system	
	Importance	4	5.0	Awareness of leadership development; Attention to UG and AL	

RQ2. Perceived impacts of the HE academic leadership development program on involved European and Chinese HEIs regarding HE-related policies and practices

The quantitative results indicate the high level of agreement among European and Chinese participants regarding the impacts of the HE leadership development program on HE-related policies and practices including some challenges in forming the new international cooperation model on UG and AL.

With regard to the extent to which the HE academic leadership development program had impacts on HE-related policies within European and Chinese HEIs, both European and Chinese respondents reported a high agreement level. While the Chinese participants indicated a relatively lower agreement level regarding the contribution of the program in providing a good reference for policy reform related to UG and AL (M=4.33; SD=.79 vs M=4.45; SD=.78), they reported a higher agreement level concerning the contribution of the program on HE-related policy development (M=4.33; SD=.65 vs M=4.15; SD=.77). However, the differences between the two groups are insignificant (t=.701; p> .05; =-1.229; p> .05 respectively)

Table 5. Impacts of the HE academic leadership development programs on HE-related policies within European and Chinese HEIs

	Chinese participants		European participants			
	Mean	*SD*	*Mean*	*SD*	*t*	*Sig.*
The outcomes of the pro can be a good reference for policy reform related to university governance at the institutional level	4.33	.79	4.45	.78	.701	.485
The program contributed to the policy development in university governance and leadership at the institutional level	4.33	.65	4.15	.77	-1.229	.222

As for the effects of the program on HE policy-related dialogue and collaboration among institutions, the quantitative findings reveal a high level of perceived agreement in all of the four aspects. In addition, Chinese and European participants did not differ in all aspects. Chinese respondents reported a slightly higher agreement level concerning the influences of the HE leadership development program on education policy (M=4.47; SD=.84 vs M=4.35; SD=.71), university governance policy in the Chinese HE context (M=4.18; SD=.81 vs M=4.00; SD=.90), and university governance policy in the European context (M=4.16; SD=.80 vs M=4.01; SD=.87). On the contrary, the European

participants indicated higher agreement level regarding the contribution of the program on policy dialogue (M=4.38; SD=.74 vs M=4.35; SD=.74)

Table 6. Impacts of the academic HE leadership development program on policy-related cooperation and policy dialogue between European and Chinese HEIs

	Chinese participants		European participants			
	Mean	*SD*	*Mean*	*SD*	*t*	*Sig.*
The program had a positive influence on the EU and China higher education policy and its cooperation	4.27	.89	4.20	.85	-.402	.689
The program had a positive influence on university governance policy in the Chinese higher education context	4.18	.81	4.00	.90	-.975	.332
The program has a positive influence on university governance policy in the European higher education context	4.16	.80	4.01	.87	-.885	.379
The program contributed to the policy dialogue among different universities.	4.35	.74	4.38	.74	.141	.888

Consistent with quantitative findings, the qualitative results illustrate the profound impacts of the HE leadership development program on HE-related policies and practices among partner universities. In addition, qualitative data provides insights into how the program positively affected institutions internally and externally. The results are presented in **Table 7.**

Concerning the impacts on HE-related policies and practice among partner universities, the codes emerged converged on two common themes for both Chinese and European samples. However, the sub-themes given to these themes showed slightly variance for each group. For Chinese interviewees, understanding of HE-related policies and practices was given utmost contribution under the theme of internal impacts. Policy adjustment and development was also highlighted as essential dimension. As for external impacts, three categories were framed including policy dialogue, the potential of forming an international collaboration model related to UG and AL, and challenges.

Similar to the Chinese counterparts, European participants underlined the internal and external impacts as the areas primarily in the effects of the HE leadership development program on HE-related policies and practices. Regarding the most cited theme concerning internal impacts, understanding of HE-related policies and practices and cultural understanding in academic management were reported to be highly central. The third important dimension under this theme is policy adjustment and development. As for the external impacts, European participants also cited for the opportunities of policy dialogue, followed by the potential of establishing an international collaboration model and challenges.

Table 7. Impacts on HE-related policies and practices among European and Chinese HEIs (qualitative results)

Themes	Categories emerged	Frequencies	%	Most frequent codes
Project participants from Chinese HEIs				
Internal impacts: **Awareness and adaptation of related policies on UG and AL**	Understanding of HE-related policies & practices	12	25.0	Leadership-related policies; policy differences; HE-related policies in Europe; HE-related in China
	Policy adjustment & development	5	10.4	leadership training within institutions; joint training program; joint research institute

External impacts: Opportunities and challenges for policy-related cooperation	Policy dialogue	12	25.0	China-EU cooperation on HE-related policies; policy recommendations; policy advisory report.
	Potential of forming an international collaboration model related to UG and AL	10	20.8	EU-China leadership center; EU-China HE partnership model; collaborative platform; unified cooperation framework.
	Challenges	9	18.8	Limited knowledge of European universities; needs of promoting closer cooperation; communication; needs of partners; language barrier; time and patience; the pandemic

Project participants from European HEIs

Internal impact: **Awareness and adaptation of related policies on UG and AL**	Understanding of HE-related policies & practices	15	29.4	Leadership-related policies; policy differences; HE-related policies in Europe; HE-related in China
	Cultural understanding in academic leadership and management related issues	15	29.4	Cultural differences in leadership; cultural understanding in management; institutional culture sensitivity
	Policy adjustment and development toward ALD	4	7.8	Strategic plan adjustment; strategic plan preparation; strategic development
External impact: Opportunities & challenges for policy-related cooperation	Policy dialogue	8	15.6	Institutional level agreements: exchanged information, knowledge, practices related to HE policy; policy-related solutions
	Potential of forming an international collaboration model related to UG and AL	5	10.0	EU-China HE partnership model; cooperative governance and leadership model; international model of leadership
	Challenges	4	7.8	Time-consuming, slow progress

5. Discussion

Given the needs of having more research on university governance and academic leadership, this paper is among the first studies that unveiled the impacts of higher education (HE) academic leadership development programs on specific involved European and Chinese universities (Dopson et al., 2018; Dumulescu & Mutiu, 2021; Hundessa, 2019). Utilizing a comparative analysis perspective, the current study provided empirical evidence and new insights into how the HE academic leadership development program has an effect on institutional HE collaboration, partnership and HE-related policies. Furthermore, the enriched results yielded from the research supported theoretical studies concerning the impacts of the complex leadership development program at the institutional level (Wallace et al., 2021). In addition, the research findings are valuable for further developments of HE collaboration on university governance and academic leadership involving European and Chinese HEIs.

Regarding the impacts on collaboration and partnership, both the quantitative and qualitative findings consistently showed the positive contributions of the HE academic leadership development program in collaboration and partnership among partner universities. The results are in accordance with the literature, which indicates that the effects of the leadership training program are reflected not only in individual or professional contexts but also in organizational aspects (Kellogg Foundation, 2002; Kirkpatrick, 1994; Ries, 2019; Wallace et al., 2021).

The quantitative findings indicate a high level of perception regarding the positive impacts of the HE academic leadership development program on building cross-institutional networks, raising awareness of diversification of university governance and academic leadership, and across-institutional collaboration among European and Chinese HEIs. The results correspond with previous findings highlighting the potential benefits of collaboration between European and Chinese stakeholders (Cai, 2019; Zhu et al., 2017; Zhu & Zayim-Kurtay, 2018). Although there are relative differences between the EU and Chinese samples in particular aspects, the differences are insignificant. In other words, there were common views of both groups in many aspects regarding the contribution of the program to enhancing mutual understanding and collaboration among European and Chinese universities. This indicates that both European and Chinese institutions found the importance and the significant values benefited from the HE academic leadership development program.

In line with the quantitative results, the qualitative findings showed that Chinese and European participants put emphasis on the contribution to enhancing mutual understanding, building trust, and opportunities for cross-institutional collaboration among partner institutions. The results showed that the program on HE academic leadership development significantly contributes to overcoming the challenges of lacking trust and mutual understanding between European and Chinese HE institutions raised by Cai (2019)'s study. In addition, the findings also indicated that the program successfully met the expectations of both sides regarding the internationalization of HE (Cai, 2019). Chinese participants further put emphasis on the impacts of the HE academic leadership development program on building domestic connections and enhancing the institution's profile. This is relevant because the strengthening of cooperation among domestic universities is certainly one of the added values of the capacity building project. The findings endorse the views of Cai (2019) illustrating the importance and strategies of Chinese HEIs for strengthening their academic competitiveness and reputation through more collaborations.

Concerning the impacts of the HE academic leadership development program on HE-related policies and practices, the findings reveal the positive influence of the Erasmus+ program regarding university governance (UG) and academic leadership (AL) on informing both sides on HE-related policies and practices as well as providing unique opportunities for HE policy enhancement within the institutions and HE-policy-related cooperation among European and Chinese universities. The quantitative results pointed out that the program positively contributed to the policy development within institutions in both European and Chinese contexts and impacted policy dialogue among partner universities. As pointed out by Cai (2019 and Liu (2019), raising awareness of HE-related policies in both sides is considered a foundation for mutual understanding, further collaboration and innovation among HE institutions.

The qualitative findings not only supported the quantitative findings but also provided more profound insights into how the program positively affected the partner institutions internally and externally. Both samples shared common views regarding the impacts in raising awareness and adaptation of HE-related policies and practices on UG and Al. Chinese and European participants mutually highlighted that the program enabled institutions to better understand HE-related policies, create opportunities for policy dialogue between both sides as well as motivate institutions to adjust and develop strategic plans related to academic leadership development. The results supported the findings of Zhu & Zayim-Kurtay (2018) pointing out that both European and Chinese universities share the needs of capacity

building for academic leaders. European participants further emphasized that the HE academic leadership program enabled them to better understand cultural differences in management learnt from Chinese universities. Given the striking development of Chinese institutions over the last years to be important competitors in the global academic institution community, it is not surprising that the European participants wanted to learn how the Chinese leaders govern their institutions and adapt to the changes and push innovation (Cai & Yan, 2015). Both Chinese participants and European participants highlighted that the HE academic leadership program successfully provided a profound foundation to form a new international collaboration model of university governance and academic leadership which is in line with the statements of Cai (2019) highlighting the importance and potential of higher education collaboration between China and the EU on different aspects. Apart from that, some challenges were taken into account regarding the impacts on this aspect. Participants pointed out that it takes time to make the impacts in establishing a collaboration model of UG and AL visible. In addition, both Chinese universities and European universities need to overcome the challenges of language barriers, mutual understanding in order to build a sustainable collaboration model of UG and AL. The results are consistent with the caution of Cai (2019)'s study pointing out crucial barriers with regard to collaboration between Chinese and European institutions.

6. Limitations and recommendations

Several limitations of the study need to be noted. This study only involves sample participants in the framework of one Erasmus+ capacity building project. Therefore, the impact examined is relevant for the specific project and the specific members and HEIs involved in this project. However, as the European HEIs are from six countries, and the Chinese HEIs are from 5 different regions in China, the findings of the study can have some relevance and provide some insights for other similar HEIs or similar collaborative projects. Another possible limitation of the current study is about the respondents' leadership positions. There were fewer interviewees at the top level and a larger proportion of participants were at the department and faculty level. Thus, the sample may not fully represent the overall participants of the Chinese and European stakeholders involved in the program. We recommend future studies to involve more stakeholders at the top level (e.g., (vice) rector, (vice) presidents, and policymakers at the universities) to gain deeper understanding of their views. Furthermore, the findings were based on respondents' self-perception, the answers of the participants could be based on their own experiences and knowledge of the relevant issues. In addition, the study was conducted about two years after the implementation of the project. Consequently, the impacts of the program on HE policies and practices regarding UG and AL were not fully captured or not yet fully reflected as presented in the results in this study. We recommend future research to replicate this study to examine further the impacts of the program in the mid-term and long-term period.

7. Implications

The current research is among scarce studies examining the impacts of the academic leadership development program at the institutional level. By providing deep insights into how the higher education (HE) academic leadership development program influences on institution collaboration, partnership and policy development, our study drew attention to the importance and potential of developing an international academic leadership development program which aims at enhancing capacities for academics and leaders individually and equally promoting collaboration, partnership among participating institutions. Our findings also highlighted the importance of developing and strengthening a sustainable network to promote mutual understanding among partners and beyond in order to achieve shared goals and visions.

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Appendices

Appendix 1. Demographic information of the survey respondents (N=92)

Variables	Category	Statistics	Percentage (%)
Gender	Male	38	41.3
	Female	54	58.7
Age (M= 40,67; SD=12,39)	22-29	9	9.7
	30-39	33	35.4
	40-49	32	34.4
	50-more	16	17.2
	Missing	3	3.3
Academic leadership experience	Junior level (0-5 years)	42	45.1
(M= 8,78; SD=8,50)	Middle level (6-10 years)	15	16.1
	Senior level (>10 years)	26	28.0
	Missing	10	10.8
Contexts			
From Chinese universities	Chinese participants	51	54.8
From European universities	European participants	41	44.2

Appendix 2. Demographic characteristics of the interviewees (n=21)

Variables	Category	Statistics	Percentage (%)
Gender			
	Female	9	42.9
	Male	12	57.1
Age (M= 47,38; SD=10,37)			
	30-39	6	28.6

	40-49	8	38.1
	50-more	7	33.3

Academic leadership experience

(M= 8,71; SD=5,65)

	Junior level (0-5 years)	9	42.9
	Middle level (6-10 years)	4	19.0
	Senior level (>10 years)	8	38.1

Position

	University/Top level	3	14.3
	Faculty/Middle level	12	57.1
	Department/Lower level	6	28.6

Contexts

From Chinese universities	Chinese participants	11	52.4
From European universities	European participants	10	47.6
Total		**21**	**100**