



Promoting Knowledge Exchange between Academic Roles through Third Mission

Lucrezia Bano

University of Turin, Italy

Abstract

This paper is based on an empirical research promoted by the University of Turin, aimed at answering the research question about what synergies exist between the institutional missions of teaching, research and Third Mission – the vocation of university to generate societal value – within the lives of faculty members. In compliance with an exploratory sequential mixed design, a first qualitative study was conducted through interviews, subjected to software-assisted content analysis using NVivo. The synergy of knowledge exchange between different academic roles during Third Mission was recognized, thanks to collaborative interaction between people in various academic positions, such as professors, tenured and non-tenured researchers, research technicians, postdoctoral fellows, PhD students. Some faculty members put informally acquired resources and know-how to the service of Third Mission activities. By the respondents' account, interaction between colleagues in different roles – particularly those with generational gaps – and between teachers and students during Third Mission has allowed a two-way exchange. For teachers, it has resulted in the acquisition of extra-academic knowledge, which has proven to be useful in planning new educational experiences, and for junior academics as a formative space in view of faculty life. For students, the active learning prompted by Third Mission initiatives was identified as a synergy between teaching and Third Mission: the respondents found, in their experience, that the participation of students in Third Mission initiatives provided effective learning opportunities, beneficial to better achieving pre-established learning objectives.

Keywords: *Third Mission; Faculty development; Knowledge exchange; Higher education; Active learning*

1. Introduction: the “Third Mission”

Object of the research here presented is “Third Mission”, also known, since the beginning of the twenty-first century, as “third stream”, “outreach” [4], “engagement and impact” [16], “knowledge valorisation” [5], in Italy called from 2023 “knowledge enhancement” by the National Agency for the evaluation of universities and research (ANVUR). It is the most recent function of higher education to have been recognized, after teaching and research, and consists in the creation of societal value (understood as of economic, social, cultural, environmental nature) *for* and *with* the context in which the institution is located, through the mobilization of academic knowledge as research products and teaching content. The involvement of external stakeholders can happen at various levels, from the transmissive model (university spreading its knowledge to society) to the co-creative one, which implies a university-society collaboration for the generation of new, plural knowledge: Third Mission as a two-way process is also the interpretation that is gaining most ground at an international level [11]. Third mission can be acted out through activities of technology transfer, conservation of artistic and cultural heritage, production and management of public goods, public engagement, open science, continuing education and lifelong learning, clinical trials and all other initiatives for the promotion of sustainability, public healthcare and inclusion, protection of vulnerable groups, contrast of poverty and inequalities.

If many works have been dedicated to the relationship between teaching and research [1], less is known about intersections between teaching, research and third mission, considering the growing development of the concept worldwide, as in the Italian context [3]. Synergies and imbalances are fragmentally recognized on many layers: on a strategical point of view, the vision of the three mission as a virtuous cycle, and not three independent pillars, seems to be a goal for institutions [8]; however, from the perspective of the individual, Third Mission is subordinate to the other two missions, since it is perceived as optional and less rewarding [11, 13], or it is less visible inside the academia, or has less evident connections with some highly abstract disciplinary areas [6]. Nevertheless, inside-academia socialization, like the affiliation with internal university structures, research centres and laboratories, seems to play a pivotal role in the conduct of Third Mission [12].

The research problem arises from the intent to reconstruct elements that proactively contribute to cohesion between missions and, on the other side, disruptive elements. However, this paper aims to



present only some selected research results, concerning the role of inside-academia collaboration and knowledge exchange between academic roles during Third Mission activities.

2. Research Design

The research question wonders which synergies exist between Third Mission and the other academic missions, teaching and research, and if some missions prevail over others. Research hypothesis is that, over a decade after institutionalization in Italy as the third institutional mission, imbalances still exist to the detriment of Third Mission and in favor of teaching and research, and synergies between missions are rare. The research objective is to understand the experiences of faculty members, focusing particularly on synergies between research and Third Mission. The objective is pursued through an exploratory sequential mixed design: firstly, a qualitative explorative study, conducted through semi-structured interviews, aimed at investigating the role of Third Mission initiatives in the work life of faculty members and any difficulties in integrating them and carrying them out alongside teaching and research commitments. Transcripts were analyzed accordingly to content analysis [7, 10] using the NVivo software, version 15, and 23 semantic categories were extracted. According to the mixed design, the qualitative part is followed by a second study aimed at quantitatively describe the distribution of the emerging points of view, through a semi-structured questionnaire.

For the qualitative study, the population corresponds to the faculty members of the University of Turin and the sampling technique is non-probabilistic for representative elements, in which representation refers to the number of Departments. The sample size consists in 27 respondents, including 14 associate professors, 5 full professors, 3 tenured researchers, 2 non-tenured researchers, 2 research technicians and one research fellow.

For the quantitative study, population corresponds to faculty members from the University of Turin, La Sapienza of Rome, University of Padua, Alma Mater Studiorum of Bologna, Milano Statale University in Milan, University of Udine, University of Salerno, University Institute for Modern Languages (IULM) of Rome, Université Savoie Mont Blanc in France, University of Glasgow in Scotland, King's College of London in England and University of Applied Sciences and Arts of Southern Switzerland (SUPSI). A non-probabilistic convenience and snowball sampling technique was applied: academic representatives for Third Mission were invited to spread the questionnaire into their Department or University, and then questionnaires were collected by voluntary self-completion, for a total sample size of 304 respondents. Respondents resulted to belong mostly to Italian universities (71%), then French universities (27%) and only a few from UK and Switzerland (1.3% and 0.7%). The sample is quite balanced in terms of gender identity (49.7% female, 49.4% male, 0.9% who preferred not to answer), age group (38% from 41 to 50 years old, 29% from 51 to 60 years old, 21% from 31 to 40 years old, 11% from 61 to 70 years old and 1% until 30 years old) and disciplinary field, based on the ERC classification, despite with a prevalence for STEM (31% into Life Sciences, 29% into Physical sciences and engineering, 24% into Social sciences, 12% into Humanities, 4% into a interdisciplinary field), with a teaching experience equal or longer than 10 years for the 69% of respondents and equal or longer than 15 years for the 57%.

3. Results

The role of inside-academia collaboration was identified as crucial for the conduct of Third Mission, in both the qualitative – here tackled in the first instance – and quantitative study. Counting on the support of colleagues makes it possible to carry out Third Mission:

“... without collaboration I would have zero activity of Third Mission right now” (16-RT)

“... the importance of having a working group that divides tasks between members (...). nobody can follow everything well, the risk is to do everything bad.” (15-PO)

Also the presence of peer-to-peer knowledge exchange was confirmed, between both people who know each other through previous experiences and people who met because of Third Mission.

In the first case, the origin of Third Mission initiatives can be informal moments, as casual conversations and “coffee break” situations with known colleagues (20-PA), and Third Mission can be a means to explore interests and discover common ground:



"... We had already interacted, but on other matters, not on projects of this kind... This gave me the opportunity to learn about the activities carried out by colleagues who perhaps... whom I did not suspect... I did not assume had an interest in this regard." (06-PO)

In the second case – faculty members who met because of Third Mission – Third Mission prompts academic socialization that is useful for other academic purposes. In this sense, academic socialization can be considered both an enabler and fallout of Third Mission. Knowledge exchange appears to be particularly relevant in case of interdisciplinary connections, eventually transposable to research, also between social sciences or humanities and STEM sciences (02-PA, 08-PA, 09-RA, 20-PA, 21-PO, 24-PO, 25-PA):

"... I collaborate extensively with the Energy Department. Precisely because I met some of these professors during my Third Mission activities." (09-RA)

"... Each of us conducts research, obviously, on related topics. However, starting from our research skills, what we found ourselves focusing on was precisely Third Mission. (...) There are many interdisciplinary and interdepartmental influences, even in that case, which have led to meeting colleagues with whom we are now working on research projects." (12-PA)

"... This event also allowed us to get to know each other, and now we're trying to organize some research activities together, pooling our expertise." (18-RA)

Besides the integration of fields mastery thanks to peer-to-peer knowledge exchange, Third Mission may require other skills to be deployed than just authority on one, or more, research subjects. This and other reasons may lead some senior figures to seek the support of colleagues with various academic roles: Third Mission creates a space of collaboration between professors and research technicians, who possess specialist expertise in more applied fields (10-RB). Collaboration is also formed with junior faculty members, as research fellows (post-doctoral fellowships, early career fellowships) and even students (PhD students, Master's degree students), belonging to various age groups. In fact, Third Mission was defined in an interview as «a field in which hierarchical roles could be a little more nuanced» (01-RT). In addition to the lack of some skills, another reason for the involvement of other academic roles may be that, while senior figures are burdened by considerable teaching commitments and organizational-managerial tasks deriving from institutional roles, junior figures are less charged and have greater training needs concerning faculty life (07-PA).

Many kinds of knowledge exchange between different academic roles are recognized. Most of them exploit the generation gap as a reflective and generative resource, not only paving the way for dialogue in a more horizontal context, but as an actual contamination of know-hows. These initiatives proved to be an opportunity for senior faculty members to gain confidence in the capability of juniors to take on responsibilities and tackle challenging tasks (11-PA, 12-PA).

Younger people, both junior faculty members and students, detain sought-after competences in outreach and effective communication skills, use of digital tools and audio-video equipment, social media expertise and related codes. Having these kinds of competences inside academia made it possible not to seek external figures and not to invest further financial resources:

"In reality, we managed to find the webmaster through a PhD student who agreed to do it for free, because you can't find a webmaster for a year with two thousand euros." (06-PO)

The support of younger people was found also to be productive to engage primary and secondary school students during public engagement activities (10-RB, 17-TR) and create appropriate social network content (23-PA, 27-TR):

"And the second thing is that, in any case, it's an experience for them, and some of them, for example, decided after their PhD that their path would be, I don't know, school teaching, because they really enjoyed working with children, or something like that, or maybe organizing scientific dissemination events, so... A career, a job, more oriented towards that field." (15-PO)



An interesting note is the possibility for professors to transpose into academic courses, as teaching tools, what they experienced in Third Mission, being in contact with junior faculty members:

"... communication, use of social media, use of various software programs, which, even when used in lessons, become a wonderful way to reach students more effectively..." (07-PA)

"No thought is ever given to internal public engagement, involving all members of the academic community. There are also other actors and resources that are underutilized and that Third Mission could make use of, in a highly efficient and effective manner, which would then reflect on them and thus also become a way of teaching, because they integrate skills and competences that might otherwise remain hidden." (24-PO)

Junior faculty members experience a direct involvement, not only in the execution but also design and supervision of the activities (02-PA, 06-PO, 18-RA): respondents often cited the "fresh" ideas that were put on the table by them (08-PA, 17-TR, 19-PA, 22-PO, 27-TR). The benefits they derive from conducting Third Mission are tacit knowledge and background insights about academic culture, career development advice (22-PO), academic socialization and networking between peers (06-PO) and junior/senior (01-RT, 02-PA, 19-PA), effects on motivation and planning of future choices (15-PO).

"... She [a professor] involved a postdoc research fellow, so even the juniors began to work together and created some interesting synergies..." (02-PA)

Professors and other senior faculty members with teaching commitments are not only facilitated in practically conducting Third Mission, but rather Third Mission configures as a form of continuing education for them. The interaction with junior colleagues activates useful reflections on how to innovate and adapt their teaching, as they have to deal with students belonging to progressively more distant generations (06-PO).

For students, Third Mission experiences generate active learning, as they construct knowledge in new dynamic settings *extra-moenia* (17-TR, 18-RA, 24-PO), and put them in condition to mobilize informally acquired competences for academic purposes; Third Mission brings also to students a new perspective on how university can be lived (24-PO). For all actors involved, general benefits can be found in the discovery of research areas and interests other than those already known (02-PA, 14-PA, 19-PA), between senior and junior faculty members as between peers.

The quantitative study controlled frequency distributions of categories emerged from the qualitative study. By the questionnaire's results, collaboration was confirmed to be prevalent. The question "Did Third Mission activities help in establishing contacts with academic colleagues, useful for teaching and research?" (274 total compilations) permitted to indicate whether collaboration happens through the establishment of new contacts, through the exploitation of pre-existing contacts, through both, or if it doesn't happen. 212 respondents (78%) answered that some kind of academic collaboration occurs; between those, 117 respondents (55%) conduct Third Mission with both new academic contacts and known colleagues, 54 (26%) only with known colleagues and 41 (19%) only with new academic contacts.

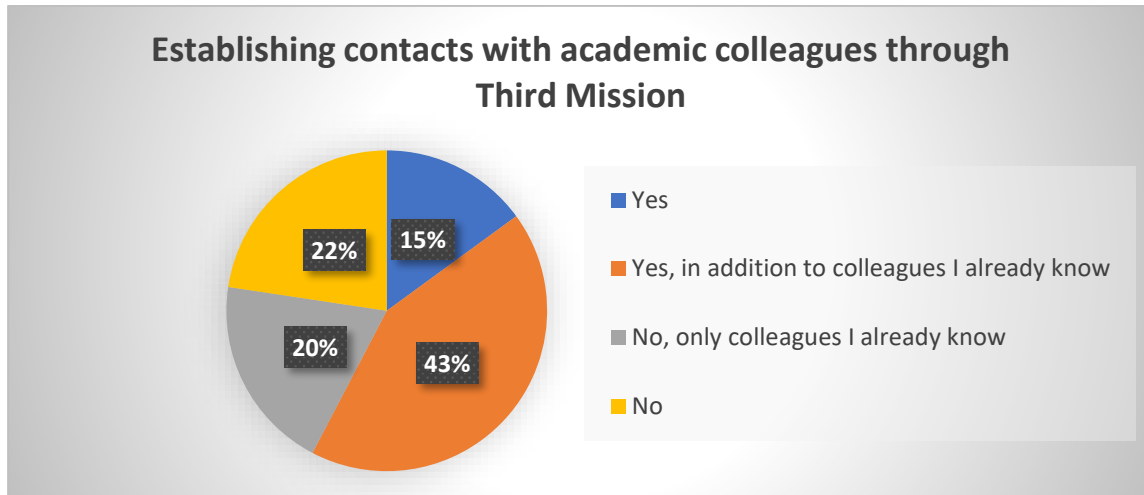


Fig. 1. The chart shows responses to the question: “Did Third Mission activities help in establishing contacts with academic colleagues, useful for teaching and research?” (274 total compilations)

To the question “Did you carry out Third Mission activities together with people in different academic roles from yours?”, which received 276 compilations, 254 respondents (92%) answered that it happened, while only 22 (8%) answered that they carried out Third Mission only with people in the same academic role.

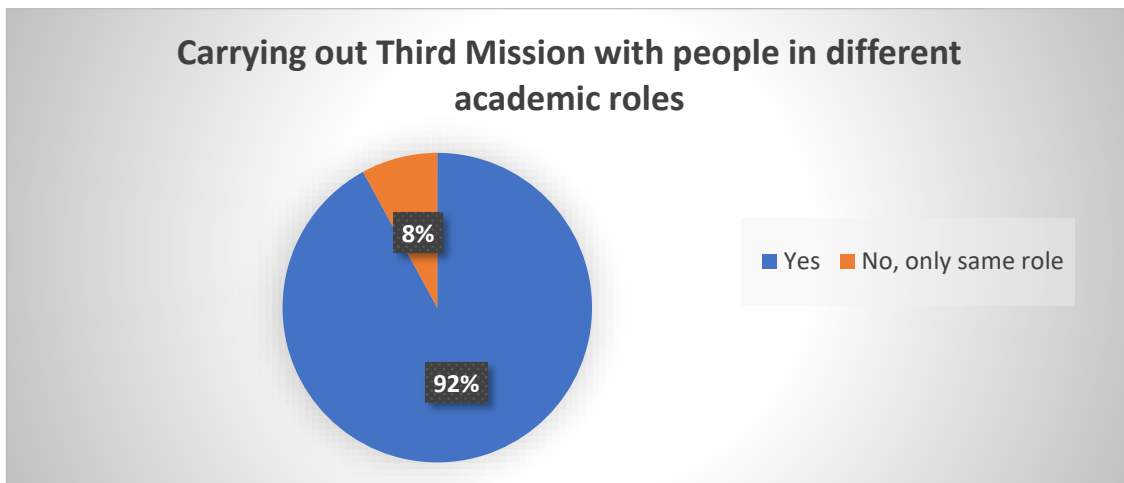


Fig. 2. The chart shows responses to the question “Did you carry out Third Mission activities together with people in different academic roles from yours?” (276 total compilations)

To the question “Did the contact – thanks to Third Mission – with people in different academic roles from yours (eventually including students) give you tools that were useful for teaching and research?”, which received 254 compilations, 176 respondents (69%) answered “yes”, while 78 respondents (31%) answered “no”.

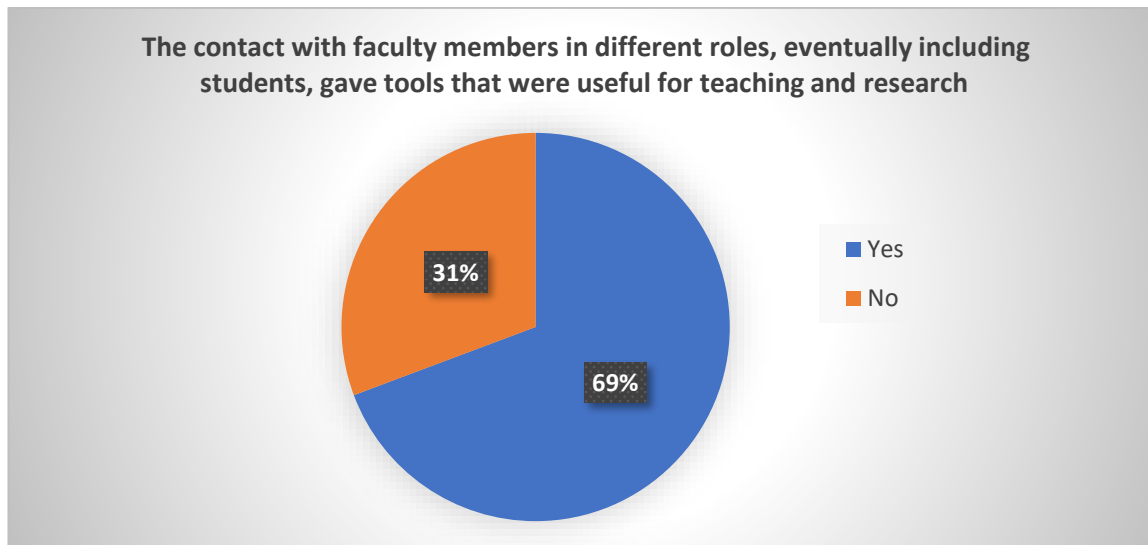


Fig. 3. The chart shows responses to the question “Did the contact – thanks to Third Mission – with people in different academic roles from yours (eventually including students) give you tools that were useful for teaching and research?” (254 total compilations)

4. Limits of Validity and Conclusions

The quantitative study strongly confirmed high frequencies for the qualitative findings related to collaboration during Third Mission and collaboration between different roles, and more than half of respondents engaging in collaborations confirmed that knowledge exchange takes place to various extents. Nonetheless, some limits of validity of the research can be extended to both the qualitative and quantitative study. As regards interviews, a limit consists in the selection of representative elements during the sampling phase, as they are representative of each Department of the University of Turin, but not entirely representative of faculty members, due to the commitment demonstrated in Third Mission. Namely, 16 respondents detain institutional commitments toward Third Mission, that include planning and monitoring of the activities at a departmental level. This could advantage their contribution to the research, because of their overall view of the departmental context, but at the same time, due to their role, they are already positioned and informed actors about the research object. As regards the survey, a bias can be found in the access to compilation, based on interest in Third Mission, as 88.8% reported having conducted Third Mission activities at least once.

Even if other qualitative and quantitative research results attested the presence of still-occurring imbalances in frequency, available resources and perception of Third Mission compared to teaching and research, Third Mission proves to be a channel of learning, for all actors involved, junior as well as senior. New teaching modalities are both implemented and experienced, new insights for future teaching are suggested and reflected upon, informal training and mentorships on faculty life and career are established. Inside-academia collaboration represents a crucial lever to make the most of intersections between missions, valorising the heterogeneity of academic communities.

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