

Problems and Countermeasures of Postgraduate Academic Exchange Activities

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Abstract. Improving students' research ability within a short academic period is the core goal of graduate education, and academic activities are an important part of achieving this goal. This analysis report takes the academic seminar activities of the School of Architecture of YN University as an example, analyzes the target background of the activities, students' participation, and the operation process of management, and concludes that the activities have problems such as restricted freedom of communication, quality to be strengthened, and lack of standardized system and evaluation mechanism. This paper proposes methods that can be optimized for activities and an evaluation framework for academic exchange activities, so as to provide reference for universities to carry out academic activities and improve the quality of postgraduate training.

Keywords: Academic Activities, Seminars, Postgraduate Training, Event Management.

1. Introduction

The education of graduate students is related to the supply of high-end technical and innovative talents of the country, which emphasizes research and innovation more than undergraduate education [1]. The results of some previous organizations indicate that the innovation ability of graduate students is low. The results of previous surveys conducted by some organizations [2] indicate that the innovation ability of graduate students is low [3] and the overall situation is not optimistic [4]. Extracurricular academic activities can improve students' ability to think independently and creatively. As early as 2002, the Ministry of Education proposed the "Innovation Plan for Postgraduate Education", and the construction of academic exchange platform and the development of postgraduate academic exchange activities are the foundation and prerequisite for the realization of this plan [5]. Academic activities have become a key part of postgraduate training in each university, and most universities have stipulated the number of postgraduates' participation in academic activities, which is included in the assessment of postgraduates' academic performance.

Academic seminars are a relatively common type of academic activity [6]. In this paper, we take the regular academic symposium held by the School of Architecture of YN University(YNU)as a case study. We analyze the purpose and background of the event, analyze the participation situation and explore the reasons for the low participation rate, dismantle the management process and analyze the reasonable and unreasonable aspects of the organization, and finally give suggestions on the organization and management of the event and its content, and summarize the good elements needed for academic exchange activities.

2. Case description

2.1. Introduction to the academic seminar activities of the School of Architecture, YNU

Under the guidance of the Dean, the YNU School of Architecture will hold a seminar exchange program every two weeks on Monday evenings from 6:30 to 10:30 pm during the academic year 2020-2021. Each year's graduate students are free to choose their own research status, research hotspots and advanced research methods in their field of interest and present them in turn. The number of students presenting at each seminar is 3~5. In principle, there are at least 2 teachers participating in each seminar, and all graduate students and supervisors are encouraged to participate.

2.2. Introduction to the activity process

(1) The academic secretary informed the participants of the presentation to prepare materials, including PPT, text materials of research progress, etc., and collect them by Monday of the week when the seminar was held, and send them to the WeChat group in the morning of the same day for students to get familiar with the content of each person's presentation in advance.

(2) One hour before the start of the seminar, the chairman borrowed the meeting room as the meeting place and notified the seminar time and place in the "pinning group" so that teachers who were available could come and give guidance.

(3) Half an hour before the meeting, the chairman and academic secretary will arrive at the meeting room to set up the venue, debug the projector, audio and other equipment, and sign in the students attending the meeting.

(4) The meeting starts with the introduction of the presenter and the title of the report by the chairman.

(5) The meeting will be conducted, the reporters will come on stage in turn, show the PPT and report, the reporting time of each person is controlled within 40 minutes, after each report, the teachers and students will ask questions and suggestions among themselves, and discuss and exchange for 15 minutes, the academic secretary is responsible for recording the meeting content, the meeting content is many and complex in the case of taking video or audio recording to ensure the meeting content is accurate and no omission.

(6) After the last person's report and the discussion and exchange between teachers and students, the chairman summarized the content of each reporter and the comments made by everyone, declared the meeting over, and everyone left the meeting. On the day after the meeting, the academic secretary will post the minutes of the meeting on the "Pinning Group" and "WeChat Group".

(7) The study committee members of the second year will appoint the chairperson and academic secretary of the next seminar and the list of participants of the presentation and notify them on the following Tuesday in the order of their academic numbers.

3. Case analysis

3.1. Purpose and background of activities

The purpose of the seminar is to broaden students' horizons and improve their research through academic exchange.

Its background has the following main characteristics.

(1) Staying close to the reform line

In compliance with the requirements in the "Opinions on Accelerating the Reform and Development of Graduate Education in a New Era" jointly issued by the Ministry of Education, National Development and Reform Commission and Ministry of Finance in 2020[7].

(2) Cross-disciplinary empowerment

At the 2020 National Postgraduate Education Conference, the graduate program "Urban and Rural Construction Engineering and Management" of YNU's School of Architecture was recorded as a

"cross-discipline", and the graduate research fields under this program include geotechnics, building structure, intelligent agriculture, project The postgraduate research fields under this program include geotechnics, building structure, smart agriculture, project control, habitat environment, and many other categories.

(3) President-led control

The initiator of the event is the Dean of the College of Architecture, who is also the head of the master's program of the College. He has repeatedly emphasized the need to strengthen interdisciplinary cooperation and allow students of different research directions to communicate with each other, and has set up a "cross-disciplinary team exchange" WeChat group and a "YNU School of Architecture Academic Exchange" pinned group, in which there are 11 research team mentors and 30 students. The dean often shares papers on "engineering management", "smart agriculture", "urban planning" and other related research frontiers in the group or presentations at well-known academic conferences. The group often shares presentations of cutting-edge research papers on "engineering management", "smart agriculture", "urban planning", etc., or presentations from well-known academic conferences.

3.2. Analysis of student participation status

Table 1 shows the frequency of participation in seminars for different grades in the 2020~2021 school year. The average participation rate of all graduate seminars in academic year 2020~2021 is 62.1%. The frequency of participation throughout the academic year for first and second semester students is mostly concentrated in 7~9 times, and for third semester students is mostly concentrated in 4~6 times. In the second semester, the participation rate was significantly lower than that in the first semester, with two meetings having a participation rate of 0. The participation rate was the lowest in the first semester when the seminar activities were first held in the first semester, but the participation rate exceeded 50% in the following semesters. As shown in Figure 1 and Figure 2.

Table 1. Frequency of participation in seminars by grade level in the academic year 2020~2021

Frequency (times)	Research 1	Research II	Research III	Total number of people
0	0.0%	0.0%	0.0%	0.0%
1~3	0.0%	22.2%	33.3%	15.4%
4~6	36.4%	0.0%	50.0%	26.9%
7~9	45.5%	44.4%	0.0%	34.6%
10~11	18.2%	33.3%	16.7%	23.1%

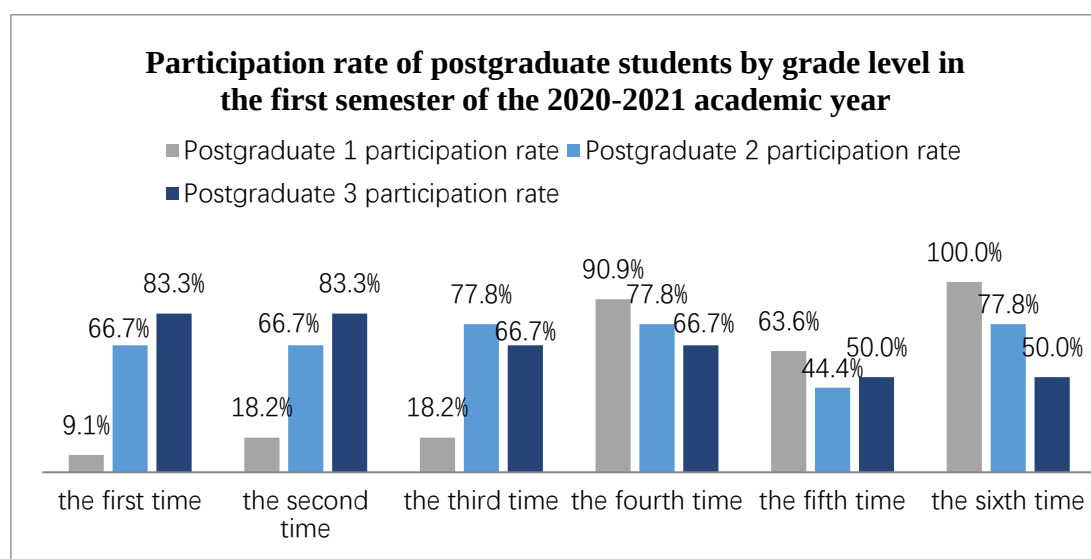


Figure 1. Participation rates of graduate students of different grades in the first semester of academic year 2020~2021

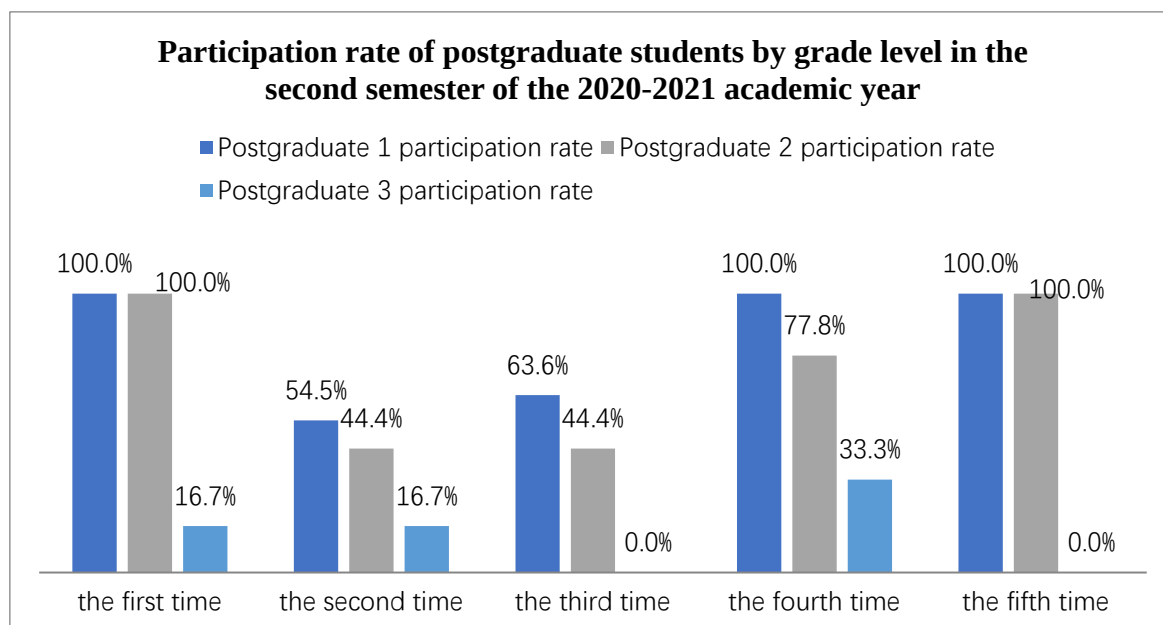


Figure 2. Participation rates of graduate students of different grades in the second semester of academic year 2020~2021

Students in the first semester of their research indicated that they need to attend classes and have fewer classes in the second semester, and they will have more opportunities to participate in seminars, but they lack research experience and cannot easily understand the content of the presentations. The participation status in the second semester of the third year of research is not satisfactory mainly because they are busy with their dissertation writing. Interviews with students also revealed that students cared more about presentations related to their research direction, and when presentations not related to them were given, students might choose not to attend, and even if they did, they would not listen carefully.

3.3. Organization and management process of the event

From the schedule of "every two weeks", this event is a regular event organized by the college. The organization and management of regular activities can be divided into four stages as shown in Figure 3: (1) the initiation stage through the study of common documents, (2) the planning stage through discussion, (3) the implementation control stage through publicity, organization of personnel to set up the venue, and arrangement of the event, and (4) the closing stage through summarizing and making suggestions [8].

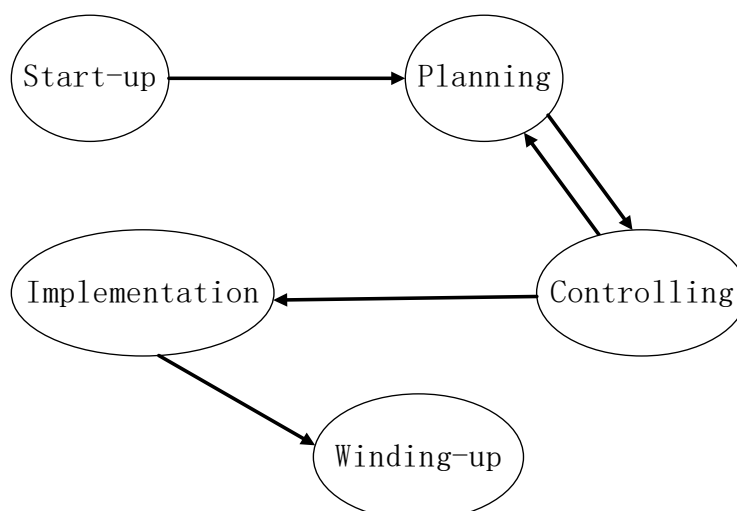


Figure 3. General process model for the organization and management of regular activities

Using the above model as a framework for analysis, we analyze the organizational management process.

3.3.1 Start-up phase

The seminar activity originated from the idea of the dean, who attached great importance to the development of students' academic reporting skills and hoped to stimulate students' innovation and creativity through a formal way of discussing research results among all faculty and students, and appointed the study committee of the second year of study to organize the activity in 2020. The initiation phase is the initial stage of organizational management, and the initiation of regular activities can proceed directly to the planning phase after the initial formation of the idea.

3.3.2 Planning Phase

The study committee members of the second year received instructions from the dean to use their time to look up videos and documents of academic exchange activities organized by other schools online, and to draw up the procedure of the activities as in section 2.2. Considering that the third year students are busy with their dissertations and the first year students still need to develop their academic ability, we chose the way of "second year students leading first year students", and the meeting chair was chosen from the second year students and the academic secretary was chosen from the first year students. The venue is the conference room on the third floor of the College of Architecture and Engineering, with audio and projector in the room, and a pantry in the office next to it, which is convenient for the leaders and teachers. The dean agreed with the proposal and gave a meeting to all graduate students to inform them of the proposal, pointing out that "we should imitate the reporting format and PPT production of large international conferences, and use international requirements to benchmark our graduate students."

3.3.3 Implementation Phase

The overall leader is the Dean, who delegates authority to the Learning Committee, who takes the lead in organizing each seminar. The organization and division of labor are as shown in Figure 4, and the organizational structure is similar to a "linear" one.

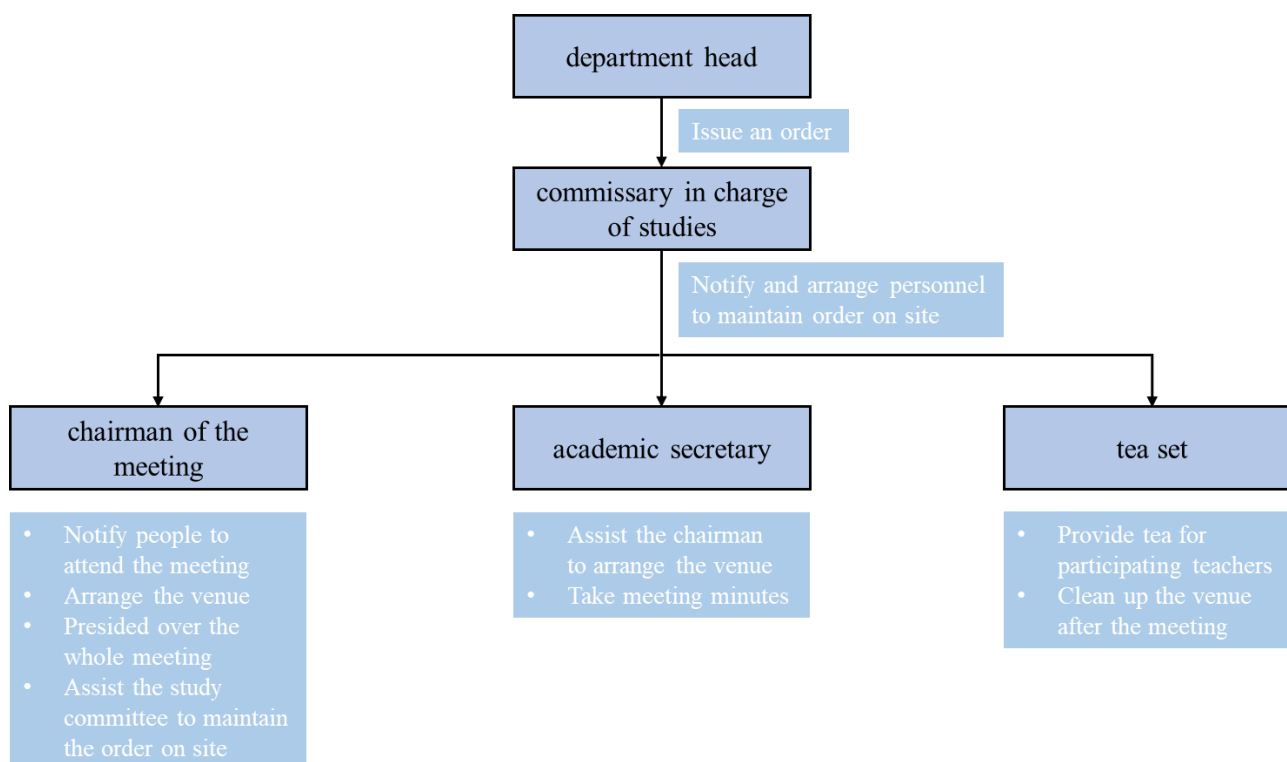


Figure 4. Organization and management mechanism of academic seminar activities at YNU School of Architecture

As the number of participants in each session of the seminar does not exceed 35, its organizational structure is sufficient to cope with the management activities.

The following problematic scenarios have been observed through field observations in the conduct of meetings.

(1) In the faculty review session of the seminar, the dean's opinion plays a dominant role, e.g., "① Teacher A wanted to raise an opposing opinion, but when he heard the dean's positive opinion, he did not express his opposition; ② When the dean raised a positive opinion on a student's point of view, other students expressed their agreement at the meeting, but expressed a negative attitude toward this opinion after the meeting. "

(2) The PPT size of the reporter does not match the screen size, and the color of the conference screen is yellowish, which can be avoided more than once by checking the equipment before the meeting.

(3) Some students were obviously not well prepared before participating in the debriefing and made mistakes in their speech, and were unable to give valuable opinions in the face of questions from classmates and teachers. The following is a partial record of the questions asked of a student's presentation.

"Student A: Is the statement "charcoal has a high ash content" a mistake?

Reporter: It was a slip of the tongue, contains grass and wood ash but not a lot.

Teacher A: What is the significance of the increased moisture content of the previous treatment?

Debriefing: This was done as a pre-treatment, and it's not clear if it makes sense.

Classmate C: By what software would it be better to simulate the calculation process, and has it been mentioned in the literature?

Reporter: No relevant literature was found, which can be used as an outlook.

Teacher B: The summary is not enough, the chunk is too obvious, there should be a clear outline title also does not match the content, the purpose of the experiment is not clear."

3.3.4 Winding-up phase

The academic secretary sends the recorded debriefing and question exchange records to the "Pinning Group" and "WeChat Group" for download and later review. However, there is no evaluation of each activity in the records, and there is no careful reflection on the unexpected situations that occurred during the meeting.

4. Existing problems

4.1. Freedom of communication is suppressed by identity and rights

When confronted with a high-powered leader, people may be too cautious to fully express their true thoughts [9]. The teacher's guidance and criticism appears wrong and is easily ignored by students [10]. Students are afraid to present ideas that are different from those of their teachers. This "student fear" can reduce the academic freedom that the seminar promotes.

4.2. The quality of reporting needs to be enhanced

There are cases where the debriefers do not prepare carefully beforehand for the task, resulting in poor quality debriefing, and even if the students prepare carefully, there are inevitable errors in their oral presentation due to misunderstanding of the literature.

4.3. Lack of system and evaluation mechanism construction

There are no explicit rules for student participation, only verbal arrangements made by the dean and study committee members. The main reason why students do not participate is that they do not consider the event to be very useful for their own learning, and the topic of the presentation is not very relevant to their own direction. Students do not realize the appeal of "cross-disciplinary knowledge expansion" that comes from academic seminars. The Academy also lacks an index for

judging academic activities, which can lead to the recurrence of "old mistakes" and is not conducive to improving the overall quality of the activities.

5. Suggestions for countermeasures

5.1. Enhance student communication

The teacher's evaluation is uniformly placed after the students' question exchange, which can enhance the students' freedom of communication. The teacher avoids using an absolutely negative tone to stifle students' motivation and focuses on encouragement and inspiration.

5.2. Strengthen the relevance of subject content and increase incentives

For the debriefers, we add the requirement of extending the debriefing content to other related fields. For example, there are students whose research direction is "green building evaluation", and there are also students whose research direction is "artificial intelligence" and "geotechnics" in the college. The content of the presentation will briefly introduce some interdisciplinary contents about "the application of artificial intelligence in green building evaluation" and "green geotechnical materials" to expand the audience's knowledge and cultivate students' "interdisciplinary thinking". This will broaden the audience's knowledge and cultivate students' "cross-disciplinary thinking".

Incentive mechanisms are added to select students with excellent performance in reporting each semester and count as a reference indicator for merit evaluation to strengthen students' attention to this activity.

The teacher's participation in the presentation will enhance the professionalism and depth of the presentation and promote the exchange between the teacher and students. The summary of the teacher's academic experience and results for many years is much more valuable than a few papers.

5.3. Establish evaluation mechanism and regular summary

Evaluate the campaign on a regular basis to identify areas where the campaign can be improved and gradually increase the impact of the campaign. Evaluation of activities is an important part of organizational management. Evaluation standards have a guiding and motivating effect on organizers, and can clearly reflect the problems in the process of activities. Referring to some literature on event management evaluation, the evaluation index content ([11]~[27]) shown in Table 2 is proposed, which can be used as a reference for the evaluation of academic seminars.

Table 2. Evaluation index system of academic seminar activities

Tier 1 Indicators	Secondary indicators	Tertiary indicators	Specific connotations
Formal evaluation indicators	Event Guarantee	Personnel Security	Whether there is a seminar and exchange team, the disciplinary background and professional quality of the team members
		Environmental Protection	Whether to create an exclusive space for the development of seminars and exchanges
	Event Implementation	Event Program	Is a detailed program developed before carrying out
		Number of activities	Number of seminars and exchange sessions conducted throughout the year
Content Evaluation Metrics	Event Planning	Event theme	Whether the theme of the activity is distinct and connotative
		Event Format	Whether the form of the activity is diverse, the degree of interaction
	Event Organization	Activity Tools	Advanced activity tools
		Activity Process	Good event sustainability, good atmosphere, good interaction
Effectiveness evaluation indicators	Events Impact	Event Feedback	Increase in the number of literature loans, digital resources utilization, and number of attendees
		Social Impact	It has the value of promotion, and is learned from and studied by sister institutions
	Participants Experience	Research Psychology Changes	Degree of increased interest in scientific research
			Degree of scientific research motivation enhancement
			Are scientific research expectations met
		Scientific Research Conduct Changes	Increase in scientific research time
			The degree of improvement in the effectiveness and quality of scientific research
		Research Literacy Changes	Scientific research skills to enhance the degree
			Degree of scientific research literacy improvement
			Degree of improvement in text writing skills

6. Conclusion

The seminar is an opportunity for students and supervisors from different research fields to come together and explore the fascination of "cross-disciplinary" and stimulate creativity. The organization of the event needs to pay attention to the professionalism of the presenters, to make the content of the presentations relevant to the needs of the students, and to make it useful for all participants. In order to improve the overall quality of the event, the evaluation process should not be neglected, and a framework of evaluation indicators should be established at.

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