Students' Experiences of Teaching and Learning Reforms in Vietnamese Higher Education

Routledge Critical Studies in Asian Education

STUDENTS' EXPERIENCES OF TEACHING AND LEARNING REFORMS IN VIETNAMESE HIGHER EDUCATION

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Background

- Why this book?
- Why student experience?
- Challenges of HE reforms
- HE reform agenda in Vietnam

Overview of HE in Vietnam

▶ Vietnam: the world's 14th and ASEAN's 3rd largest nation: over 97 million people

▶ 2019-2020: 1.672.881 students enrolled in HE

▶ 103.181 were students of minority groups and 912.660 were female (MOET, 2021)

▶ The proportion of females taking higher education rose from 48% in 2006 to 54% in 2016 (World Bank, 2020)

▶ 2019-2020: 447.483 Vietnamese students commenced HE, with 350.186 in public universities and 97.297 in non-public institutions (MOET, 2021)

▶ The female tertiary enrolment ratio (32%) was considerably higher than the male ratio (26%) (World Bank)

Challenges of HE reforms

- Finance: Vietnam's GDP share of HE spending of 0.25%, compared to Singapore (1.0%), South Korea (0.94%), Malaysia (1.3%), and Thailand (0.64%) (Doan, Kang, & Zhu, 2020).

- Leadership and management: Vietnam's HE sector has been laden with the centralized planned leadership and management

- Curriculum, teaching and learning

- Students' learning attitudes and habits

- Structural conditions hindering faculty development

HE reform agenda in Vietnam

- Target key areas deemed to be in need of improvement
  - HE autonomy and governance
  - Curriculum
  - Teaching and learning
  - Assessment
  - Graduate employability
  - Internationalization

- Higher Education Reform Agenda (HERA) manifest by Resolution 14/2005/ND-CP
- Higher Education Law 2012 (08/2012/QH13)
- Strategy for Education Development for Vietnam 2011–2020 (Decision 711/QĐ-TTg, 13/6/2012)
- Decree 73/2012/ND-CP on foreign cooperation and investment in education
- Decree 86/2018/ND-CP on foreign cooperation and investment in education (replacing Decree 73/2012/ND-CP)
- Decree 73/2015/NĐ-CP on the stratification and ranking of HEIs
- Amended Higher Education Law 2018 (34/2018/QH14)
- Revised Education Law issued in June 2019 (43/2019/QH14)

What did we investigate?

1. Building a favourable learning environment for students
2. Transition of first-year students into the university
3. Students' experience with the use of credit-based training system
4. Student-centered teaching: current practices and obstacles
5. The use of ICT in teaching and learning
6. At-home international education and graduates' employability
7. Assessment practices and the washback effect on students' learning
8. Work placement : Students' learning outcomes and influential factors
9. Extracurricular activities as informal learning: facilitators and inhibitors
10. The values of undertaking university education

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1. Building a favourable learning environment for students

▶ This chapter reports on a survey with 828 students about their experiences with the physical, academic and servicing environment in more than 58 institutions across Vietnam.

Learning environment	Contentment			M	SD
	Discontent (%)	Neutral (%)	Content (%)		
Physical learning environment					
Campus and facilities	11.8	15.1	73.1	3.86	1.09
Information technologies	24.4	20.4	55.3	3.44	1.24
Space and learning resources	16.1	16.9	67.0	3.75	1.18
Servicing environment					
Learning and career development support services	16.15	26.17	57.68	3.54	1.07
Student loan and extracurricular activity services	15.98	21.73	62.28	3.61	1.11
Catering services	20.27	29.30	50.43	3.39	1.17
Academic learning environment					
Academic staff's qualities	9.74	19.02	71.23	3.89	1.03
Professional staff's qualities	16.88	23.36	59.76	3.56	1.10

1. Building a favourable learning environment for students

▶ Students were generally satisfied with the learning environment established by their institutions, but more attention should be paid to the maintenance of facilities and the operation of student-related services.

▶ Likewise, acknowledging the professional staff's contribution, they believed that these staff should be more professional to make the academic environment better conducive to their learning.

▶ Mann-Whitney U test: Students from private institutions were more pleased with the physical learning environment in their institutions than their counterparts from public ones

4. Student-centered teaching: Practices and obstacles

▶ A quantitative study of how student-centred teaching has been implemented in Vietnamese higher education institutions.

▶ The implementation of this teaching approach was investigated at the institutional level (leadership, management and support) and classroom level (course development, teaching-learning activities, teacher quality, student-teacher rapport)

▶ Data: 831 responses of students from 39 institutions to an online survey

▶ Main findings: Student-centred teaching has generally been practiced effectively at the classroom level. However, it seemed that implementation at the institutional level should be enhanced to create a favourable environment for implementation at the classroom level.

4. Student-centered teaching: Practices and obstacles

Implementation at the institutional level	M	SD
Policy communication and learning support	3.88	0.68
Managing students' learning experiences	3.73	0.89
Providing flexibility for students' learning	3.62	1.00

Implementation at the classroom level	M	SD
Involving students in course design and improvement	3.84	0.71
Conducting teaching and learning activities	3.81	0.70
Teacher attributes	4.12	0.65
Clarity in communication	4.28	0.61

8. Work placement practices: Students' learning outcomes and influential factors

▶ This chapter will explore students' experiences with their internships and what influences their internship performance.

▶ Data: quantitative case study, 270 responses to a survey.

▶ Findings:

- ▶ Students generally had positive experience with the internship.
- ▶ Their internship performance was influenced by their engagement, the support of the host organization (especially the mentor), the support from the academic supervisor, and overall institutional support.

8. Work placement practices: Students' learning outcomes and influential factors

Internship outcomes	M	SD
1. The internship change my learning attitudes, from a focus on knowledge to ability to use it	4.12	0.84
2. The internship helped me develop soft skills important for the target industry	3.90	0.88
3. The internship afforded me opportunities to apply what I have learned	3.86	0.91
4. The internship helped me further develop technical skills	3.86	0.87
5. The internship helped me consolidate knowledge taught at the university	3.76	0.90
6. The internship helped me adjust my learning method to make it more effective	3.73	0.83
7. The internship helped me identify new career paths related to what I am studying	3.61	0.95
8. The internship helped me to forge relationships with potential business partners	3.22	1.01

8. Work placement practices: Students' learning outcomes and influential factors

21 variables were extracted to 4 principal components:

Components	M	SD
The industry mentor and the host organization's support	3.67	0.79
Interns' engagement	4.02	0.68
The academic supervisors' support	3.71	0.93
Institutional support	3.58	0.90

9. Extracurricular activities as informal learning: facilitators and inhibitors

► This chapter reports a quantitative study that investigated the effectiveness of the development of employability skills for students in Vietnamese universities via extra-curricular activities.

► Data: 797 responses to the same survey at two points in time, 2015 and 2019.

► Main findings:

  ► The Youth Union and its associates (YUA) frequently organized a diversity of extra-curricular activities to develop employability skills for students.

  ► Differences, with a decline tendency, were observed between the 2015 and 2019 student cohorts in terms of focus of extra-curricular activities organized by the YUA, students' patterns of participation and perceived contribution of participating in these activities to the development of students' employability skills.

9. Extracurricular activities as informal learning: facilitators and inhibitors

Frequency of organizing extra-curricular activities:

Activities	Year 2015 (N = 423)		Year 2019 (N = 374)	
	M	SD	M	SD
Political education activities	3.48	1.09	3.18	1.11
Activities that train specialised skills	3.24	1.24	3.29	1.12
Activities that train work skills	3.76	1.17	3.47	1.15
Activities that train social engagement skills	3.89	1.11	3.87	1.06
Recreational activities	3.70	1.20	3.85	1.15
Activities that nurture special talents	3.74	1.20	2.96	1.28

Mann-Whitney's U tests: differences in students' experience with YUA's organisation of political education, work skills development and talent-nurturing activities between 2015 and 2019

9. Extracurricular activities as informal learning: facilitators and inhibitors

Frequency of students' participation in extra-curricular activities:

Students' participation in …	Year 2015 (N = 423)		Year 2019 (N = 374)	
	M	SD	M	SD
Political education activities	3.76	1.13	3.13	1.16
Activities that train specialised skills	3.31	1.18	3.34	1.11
Activities that train work skills	3.64	1.18	3.53	1.15
Activities that train social engagement skills	3.73	1.09	3.79	1.07
Recreational activities	3.67	1.04	3.75	1.19
Activities that nurture special talents	3.80	1.06	2.99	1.31

Mann-Whitney's U tests: There were statistically significant differences in students' participation in in YUA's political education and talent-nurturing activities between the two cohorts.

9. Extracurricular activities as informal learning: facilitators and inhibitors

Contribution of students' participation in extra-curricular activities to their skill development:

25 skills extracted to 6 principal components

Components	Year 2015		Year 2019	
	M	SD	M	SD
Information handling skills	3.88	0.78	3.43	0.90
Personal management skills	3.78	0.68	3.74	0.87
Professional development skills	3.77	0.79	3.54	0.93
Interpersonal skills	3.95	0.70	3.69	0.93
Learning skills	3.56	0.86	3.64	0.93
Communication skills	3.79	0.83	3.79	0.88

Mann-Whitney's U tests: The 2019 student cohort had a less positive experience with the development of information handling skills, professional development skills and interpersonal competence than the 2016 student cohort did

10. The perceived values of undertaking university education

▶ This chapter explores students' experiences with the benefits of pursuing higher education in Vietnam.

▶ Data: 809 responses of students from 38 institutions across Vietnam to an online survey

▶ Main findings:
  ▶ Vietnamese universities focus much on preparing students for work but less on personal growth and social engagement aspects.
  ▶ Students are very satisfied with most activities in their institutions, except for student support services.
  ▶ About 2/3 of students think that their university education is valued for money; public institutions seemed to provide better values
  ▶ Almost half of students revealed that if they have a chance, they would enroll in a different university; students from public institutions had higher percentages for such an intention.

10. The perceived values of undertaking university education

How has your university education contributed to the development of the following aspects?

25 variables were extracted to 4 principal components:

Components	M	SD
Professional development	3.62	0.85
Personal and inter-personal growth	3.56	0.83
Scientific insights	3.50	0.91
Social engagement	3.09	1.04

Mann-Whitney U tests: Students from private institutions appeared to significantly develop social engagement and scientific insights more than their peers from public institutions

10. The perceived values of undertaking university education

How much do you feel satisfied with …	M	SD	Levels of satisfaction (%)				
			1	2	3	4	5
career orientation activities	3.67	1.09	4.9	9.4	23.4	37.8	24.5
quality of teaching	3.67	0.97	2.2	9.5	26.9	41.3	20.0
extra-curricular activities	3.63	1.04	3.5	10.4	27.5	37.6	21.5
content of the program	3.62	1.05	4.7	9.0	26.5	39.7	20.1
infrastructure and facilities	3.60	1.02	2.2	13.1	26.8	37.7	20.1
the objectivity in assessing students' learning	3.55	1.03	3.1	12.2	29.9	35.8	18.9
services to support students who face difficulties	3.52	1.08	4.8	12.1	28.7	35.5	18.9
services to support first-year students' transition	3.48	1.10	5.8	12.4	27.3	36.6	17.9
student learning support services	3.47	1.09	4.4	15.1	27.4	35.0	18.0
Note: 1 = very dissatisfied, 2 = dissatisfied, 3 = moderate, 4 = satisfied, 5 = very satisfied							

10. The perceived values of undertaking university education

Was your university education experience good value for the money you invested?

- Yes: 61.9% students
- Unsure: 27.1%
- No: 11%
- Students from public institutions > students from private institutions: 65.4% and 52% respectively

If you could choose again, would you change to another institution?

- Yes: 46.7%
- Unsure: 36.6%
- No: 16.7%
- Students from public institutions > students from private institutions: 50.6% and 35.4% respectively.

Teaching and learning reforms in Vietnamese universities: the way forward

- **What to do to advance teaching and learning reforms in Vietnam?**
  - *Curriculum:*
    - Issues: Rigidity, theory-focused content
    - Recommendation: flexibility in design and delivery; regular updates; more practical content

  - *Students*:
    - Issues: not have appropriate attitudes and engagement with their learning: learn for grade/degree/ family expectations; still hold on with the passive, dependent and exam-oriented learning habit; inabilities to learn independently, to adapt to a new environment, and to get along with people.
    - Recommendation: Learning support + improve their learning engagement

  - *Teachers*:
    - Issues: Disengage from the reforms because several reforms would result in teachers stepping down in their social status + Many teachers lack expertise, support and leadership for executing reform tasks.
    - Recommendation: increase teacher buy-in attitudes with the reforms + professional development

▶ *Leadership:*

  ▶ Issue: Lack experience in leadership and management

  ▶ Recommendations: Choose an appropriate approach to implement the reforms, considering their institutional contexts and focus on enhancing students' learning experiences + Leadership should go hand in hand with support and management + Shared leadership

▶ *Infrastructure, facilities and learning resources:*

 ▶ Recommendation: increase the management and maintenance

▶ *Non-curriculum activities:*

  ▶ Recommendation: Enhance the roles of the YUA in leading extra-curricular activities; connect to industry for non-curricular activities

▶ *External stakeholders:*

  ▶ Issue: Limited connections with external stakeholders

  ▶ Recommendation: Keep in touch with alumni and build the network with external stakeholders from there; collaborate with international partners for internationalization activities

A framework for teaching and learning reforms
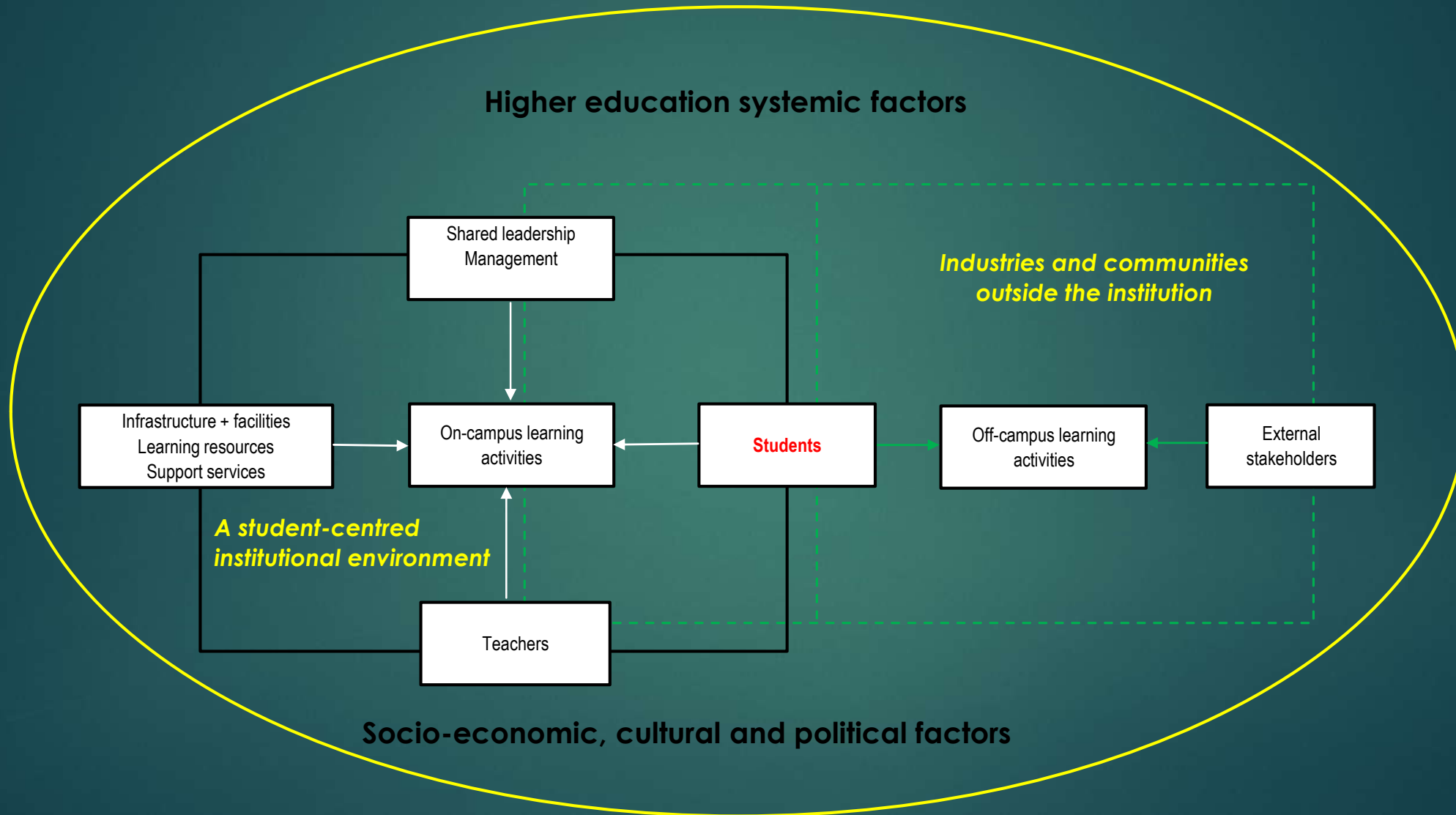
We would like to acknowledge the valuable support from our colleagues for these studies and the contributions from our student participants

Thank you!

Additional information about other chapters

2. Transition of first-year students into the university

▶ This chapter explores first-year Vietnamese students' motivations for enrolling in their program, goals for their whole academic program, difficulties they are facing and their experience with the activities in place to facilitate and support their transition to universities.

▶ Data: 24 interviews and 438 responses to a survey

▶ Main findings:

  ▶ *What motivated students to enrol in a program?*

  Top 3: affordable tuition fees (M = 3.93, SD = 1.42), employment opportunities (M = 3.78, SD = 1.30), and career development prospects (M = 3.14, SD = 1.11)

  ▶ *What were their goals for the whole academic program?*

  a certificate in computer skills (M = 3.75, SD = 1.14) and foreign language (M = 3.71, SD = 1.15) as well as building a social network (M = 3.68, SD = 0.96).

2. Transition of first-year students into the university

Usefulness of orientation activities

Usefulness of orientation activities for first year students	M	SD
Informing about general regulations of the university/ school	3.42	1.04
Instructing about how to register for subjects online	3.39	1.11
Announcing testing and assessment practices	3.33	1.00
Instructing about how to use computer lab, libraries and similar utilities	3.28	1.11
Teaching learning methods in higher education	3.24	1.03
Introducing student support services	3.18	1.06
Introducing student associations for extra-curricular activities	3.13	1.12

2. Transition of first-year students into the university

Difficulties in the first year and their institutional support

Difficulties and institutional support	Level of difficulty (%)			Level of support (%)		
	Weak	Moderate	Strong	Little	Moderate	Much
Homesickness	44.30	27.20	28.50	39.00	33.30	27.70
Failing to adapt to the academic environment	45.80	26.30	27.90	30.40	34.20	35.40
Feeling disconnected to people around	44.50	25.80	29.70	30.20	37.40	32.40
Loss in defining learning goals	33.40	33.30	33.30	27.40	39.50	33.10
Difficulties in taking care of myself	41.40	29.40	29.20	36.10	34.70	29.20
Cultural differences compared to that in my hometown	34.90	32.20	32.90	26.70	36.50	36.80
Falling to find an effective learning method	29.00	28.10	42.90	25.60	29.20	45.20
Complexity of technologies used on campus	29.90	34.20	35.90	25.20	32.40	42.40
Challenges related to self-management	28.70	29.20	42.10	28.30	35.80	35.90
Financial problems	32.00	33.30	34.70	25.10	32.40	42.50
Difficulties related to finding suitable accommodation	40.00	29.90	30.10	27.20	27.20	45.70

3. The use of credit-based training system

- This chapter reports the result of a mixed-method case study on student experiences with the operation of the credit-based training system in curricula in a key university in Vietnam.
- Data: 204 responses to an online survey
- Main findings:
- **How much does the credit-based training system benefit students' learning?**

Enhancing students' learning behaviours	**3.93**	**0.90**
It helps me become more proactive in my studies	4.11	0.90
It helps develop my self-regulated learning ability	3.91	0.84
It helps enhance my ability to work with students from different majors	4.05	0.93
Flexibility in learning	**3.88**	**0.95**
It reduces the time that I have to stay in the class	3.58	1.00
It allows me to choose an academic that I want to study with	3.38	1.06
It allows me to select subjects of my interests	3.94	0.99
It allows me to decide on the quantity of knowledge suitable with my learning ability	3.93	0.98
It allows me to complete my degree sooner or later, dependent on my circumstances	4.12	0.87
It allows me to manage my progress to completion of my degree	4.31	0.80

3. The use of credit-based training system

Students' experience with the implementation of the credit-based training system

Components	M	SD
Support and management	3.84	0.72
Operational regulations	3.98	0.68
Conduct of teaching-learning activities	3.62	0.69

Because the study time was short, we did not gain knowledge deep enough. It was also difficult to connect knowledge between subjects. (Respondent 54)

Many students take advantage of it and learn superficially. If we have to work in group with such students, our learning outcomes are bad. (Respondent 143)

For the first two years, developing the study plan and registering subjects accordingly was a nightmare for us. (Respondent 7)

5. The use of ICT in teaching and learning

▶ In this chapter, we will report the results of a mixed-methods study on students' experience with the use of ICT in teaching and learning activities at three universities.

▶ Data: 16 interviews and 410 survey responses from 38 institutions

▶ Main findings:

There has been ICT facilities and applications available in Vietnamese universities.

Teachers and students have also been engaging with using ICT for their teaching and learning in the classroom respectively. However, both teachers and students appear to not have engaged with ICT-enhanced learning activities outside the class.

A lack of ICT support staff and services caused some challenges for the adoption of ICT for teaching-learning purposes.

5. The use of ICT in teaching and learning

Availability of ICT facilities	Agreement (%)		
	No	Neutral	Yes
My university has been equipped with student computer labs	4.1	5.1	90.8
My university has a webpage that informs all operational activities	7.1	23.2	69.7
My university offers free Wi-Fi for students to use	9.0	16.8	74.2
My university has provided some software for students to use free of charge	6.6	8.8	84.6
My university has built a central library equipped with modern ICT facilities	8.0	9.5	82.5
My university provides online learning resources to meet students' learning needs	4.9	6.3	88.8

ICT applications	Agreement (%)		
	No	Neutral	Yes
My university has used an online platform for subject registration	3.7	5.6	90.7
My university communicates with students via social media channels	4.9	10.0	85.1
My university created a student accounts for students to manage their learning progress	8.3	14.6	77.1
My university collects students' feedback on their learning using an online platform	4.1	9.8	86.1
My university uses electronic system for the libraries to manage book loans	9.8	16.8	73.4

5. The use of ICT in teaching and learning

ICT support staff	Percentage of agreement		
	No	Neutral	Yes
My university has IT technician available to support any ICT-related issues	9.3	18.0	72.7
My university has a IT service to assist students and staff of any ICT-related issues	12.2	21.2	66.6
My university organizes courses that train students in using ICT for their learning	13.7	19.8	66.5

When there is technical issues, there was no support. The teacher or students have to fix it by themselves, sometimes running out of time.

They should organize computer classes to help students more skillful. We did learn to use computers, but many of us are not that skilled enough. (Interviewee 2)

5. The use of ICT in teaching and learning

Lecturers' use of ICT	Agreement (%)		
	No	Neutral	Yes
Lecturers often use ICT in their teaching	3.7	6.3	90.0
Lecturers contact students using applications (e.g., WhatsApp's, Messenger)	5.6	17.3	77.1
Lecturers often share online learning resources for students to learn	4.6	9.0	86.4
Lecturers join in students' learning groups in social media (e.g., Facebook groups)	6.3	9.5	84.2
Lecturers encourages students to use ICT for their learning	3.4	10.0	86.6

Well, I found it as boring as those who did not use PowerPoint. I mean if they [teachers] can summarize or use visual aids or video clips or something similar to make our learning more interesting, or just show the text quickly to save time for interacting with us, that would be good. But unfortunately, they showed the text in the compendium, just for them not to talk a lot. I found it so boring, nothing. (Interviewee 3)

5. The use of ICT in teaching and learning

Students' use of ICT	Agreement (%)		
	No	Neutral	Yes
I follow my university's media page to update teaching-learning news and policies	7.8	6.3	85.9
I often use computers or laptop for my studies	5.4	13.7	80.9
I follow my teachers' social media page to update information about the subjects	8.8	14.9	76.3
I often use ICT for my presentation of assignments	5.6	7.1	87.3
I often participate in an online learning group	3.4	4.9	91.7

8.8% reported that they did not own any laptop or computers for their learning

We created a group [on Zalo] to facilitate our ideas related to assignments because it is less effective to do it via email. We invite our teachers to the group too so that they can advise us when we get stuck. (Interviewee 2)

No, I joined the group just for stalking: check information on learning timetable, when there will be tests, whether the teacher checks attendance. Related to learning, sometimes I asked questions [related to assignments] to get help from friends (Interviewee 1)

7. Assessment practices and the washback effect

▶ This chapter reports a quantitative study about students' experience with assessment practices in Vietnamese universities and their cheating behaviours.

▶ Data: 416 responses to an online survey

▶ Findings:

  ▶ Students were positive about most of their teachers' behaviours related to assessment, but they also suggested several aspects that need improvement.

  ▶ Assessment practices was in a transitional stage: teachers have bought brought in new practices while still holding on their power in conducting assessment activities, without giving students much flexibility.

7. Assessment practices and the washback effect

30 items were extracted to 3 principal components:

Components	M	SD
Development of assessment tasks	3.52	0.57
Conduct of the assessment activity	3.69	0.51
Appropriateness of assessment activities	3.52	0.64

THE BEST:
- Teachers ensure fairness in assessment for all students (M = 3.482, SD = 0.94),
- Teacher clearly articulate the assessment criteria (M = 3.77, SD = 0.98),
- Teachers provide specific feedback on students' performance (M = 3.74, SD = 0.93).

THE WORST:
- Teachers did not adequately involve students in deciding the weighting of assessment tasks (M = 3.38, SD = 1.06),
- Teachers did not allow students to choose forms of assessment (M = 3.39, SD = 1.02).
- Assessment tasks did not focus on students' ability to apply knowledge and skills (M = 3.34, SD = 1.20).
- The difficulty level of assessment tasks did not increase with university years (M = 3.40, SD = 1.06).

7. Assessment practices and the washback effect

Cheating behaviours	never	rarely	seldom	often	always
Using references inappropriately	19.5	46.9	14.3	13.4	5.9
Taking some authors' ideas as my own ideas	18.2	43.0	15.0	17.4	6.4
Taking materials that are not allowed into the exam room	46.2	14.3	13.4	20.4	5.7
Looking for information about the content of the test by all means	33.6	14.3	19.1	25.2	7.8
Asking other test candidates for help	11.3	23.2	20.0	39.0	6.5
Helping other candidates to do the test	10.6	18.7	23.2	38.2	9.3
Copying the answers of other test candidates	18.7	16.5	18.0	38.6	8.2
Allowing other candidates to copy my test papers	13.7	16.1	17.4	42.3	10.5
Asking someone to do the test for me	30.2	8.9	13.2	39.0	8.7
Resubmitting a paper for another test without getting permission	35.8	5.2	16.7	32.3	10.0

Among 12 reasons for cheating in exams, students are most likely to cheat when:
- They want to obtain a high score for a subject without hard work (M = 3.37, SD = 1.19),
- They are lazy (M = 3.36, SD = 1.08),
- They want to reduce the foreseeable risk of failing a subject (M = 3.28, SD = 1.18).

6. At-home international education and graduate employability

▶ This chapter reports a study that explored how at-home international education, known as advanced programs, offered by Vietnamese universities contributes to students' employability and career prospects.

▶ Data included 30 interviews with third- and fourth-year students, two institutional reports, and a national report on the progress of these programs after 10 years of implementation.

▶ Main findings:

  ▶ Advanced programs could help students develop human capital, expand their social network, enrich cultural understanding via mobility, enhance their career adaptability, and develop professional identity.

  ▶ However, despite quality learning outcomes, approximately one-third of graduates appeared not to successfully secure relevant employment within a year post-graduation.

6. At-home international education and graduate employability

- **Human capital**: updated learning materials, qualified teachers, innovative curriculum and pedagogical practices
  - *This program has provided me with much knowledge. I have chances to study with international and domestic teachers who have profound knowledge and practical experience. (P26)*

- **Social and cultural capital**: field trips, international exchange, exposure to different teaching philosophy
  - *I have expanded my network with many friends through participating in student-exchange programs abroad and international conferences. […]. That is when we can connect to people in the same field of study. (P25)*

- **Psychological capital**: high teaching-learning standards, high expectations
  - *When we studied with foreign teachers, they assigned more assessment tasks throughout the course […], so we had to spend a lot of time doing homework and studying in groups. Sometimes we had to stay up late until 3 or 4 am for these activities. […] We all were stretched and forced to make a great effort. (P01)*

- **Career identity**: connection to industry, advice from teachers and stakeholders
  - *I see that I should follow research rather than go for jobs in enterprises because my study is research-focused. English skills and lab research are my strengths. […]. I plan to continue to study. The university has cooperation with many foreign partners, so there will be plenty of scholarship opportunities for that. (P25)*

6. At-home international education and graduate employability

Learning outcomes

Phases of implementation	No of graduates	Ranking of graduates			
		Outstanding	Excellent	Good	Satisfactory
Phase 1 (10 programs)	1784	116	682	794	192
Phase 2 (13 programs)	1245	108	424	610	103
Phase 3 (12 programs)	572	31	201	303	37
Sum	3601	255	1307	1707	332

Types of outcomes		Phase 1	Phase 2	Phase 3	Sum
Publications	International publications	94	40	5	139
	Local publications	107	67	18	192
	Conference attendance/ presentations	38	89	29	156
Research projects	Cross-border research projects	6	3	4	13
	National level research projects	0	2	0	2
	Provincial level research projects	19	1	1	21
	Institutional level research projects	40	60	75	175
	Student research projects	194	84	131	409
Awards		31	21	6	58

9. Extracurricular activities as informal learning: facilitators and inhibitors

Frequency of organizing extra-curricular activities:

Activities	Year 2015 (N = 423)		Year 2019 (N = 374)	
	M	SD	M	SD
Political education activities	3.48	1.09	3.18	1.11
Activities that train specialised skills	3.24	1.24	3.29	1.12
Activities that train work skills	3.76	1.17	3.47	1.15
Activities that train social engagement skills	3.89	1.11	3.87	1.06
Recreational activities	3.70	1.20	3.85	1.15
Activities that nurture special talents	3.74	1.20	2.96	1.28

Mann-Whitney's U tests: differences in students' experience with YUA's organisation of political education, work skills development and talent-nurturing activities between 2015 and 2019

9. Extracurricular activities as informal learning: facilitators and inhibitors

Frequency of students' participation in extra-curricular activities:

Students' participation in …	Year 2015 (N = 423)		Year 2019 (N = 374)	
	M	SD	M	SD
Political education activities	3.76	1.13	3.13	1.16
Activities that train specialised skills	3.31	1.18	3.34	1.11
Activities that train work skills	3.64	1.18	3.53	1.15
Activities that train social engagement skills	3.73	1.09	3.79	1.07
Recreational activities	3.67	1.04	3.75	1.19
Activities that nurture special talents	3.80	1.06	2.99	1.31

Mann-Whitney's U tests: There were statistically significant differences in students' participation in in YUA's political education and talent-nurturing activities between the two cohorts.

6. At-home international education and graduate employability

Employment outcomes

Phases of implementation	Work sectors					
	(1)	(2)	(3)	(4)	(5)	(6)
Phase 1 (10 programs)	54	52	172	227	107	722
Phase 2 (13 programs)	43	34	52	286	312	220
Phase 3 (12 programs)	29	18	48	152	159	101
Sum	126	104	272	665	578	1043
(1) Lecturers in a tertiary education institution			(4) Staff in an international organization			
(2) Researchers in a research organization			(5) Staff in other types of organization			
(3) Staff in a public organization			(6) Unknown			

Approximately one-third of graduates (1043/ 3601 graduates) appeared not to successfully secure relevant employment within a year post-graduation.