



Tracer Study of
**INFORMATICS EDUCATION STUDY
PROGRAMME (BACHELOR DEGREE)**

FACULTY OF ENGINEERING AND
VOCATIONAL

Universitas Pendidikan Ganesha
2021

**TRACER STUDY IMPLEMENTATION REPORT
YEAR 2021**



**INFORMATICS EDUCATION
STUDY PROGRAMME**

**INFORMATICS EDUCATION PROGRAMME
FACULTY OF ENGINEERING AND VOCATIONAL
UNIVERSITAS PENDIDIKAN GANESHA
2021**

SUMMARY

One of the ways to evaluate the relevance of higher education and the world of work can be done through Tracer Study. Therefore, in a planned and systematic way, UNDIKSHA (Universitas Pendidikan Ganesha) annually carries out a Tracer Study with instruments that at least contain standard questions nationally and are also carried out using national standard designs and methodologies, so that the absorption, process, and position of graduates in the world of work can be known. The implementation of the Tracer Study in the Informatics Education Study Programme uses a census research design, in accordance with the research design used by the UNDIKSHA Institute. The subjects of the 2021 Tracer Study are 127 graduates in 2019 and 61 graduates in 2020. Thus, the total subjects of this Tracer Study were 188 respondents. The target of respondents set by the Institute in 2021 is at least 80% each. The methods of collection were online, and telephone interviews. The Tracer Study instrument used is a questionnaire adopted from the questions in the Ministry of Education and Culture's national online Tracer Study system. In addition, several questions were added related to data requirements for filling out 9 criteria accreditation instruments from BAN PT or *Badan Akreditasi Nasional Perguruan Tinggi* (National Accreditation Board for Higher Education), data requirements for achieving IKU-PTN or *Indikator Kinerja Utama Perguruan Tinggi Negeri* (Main Performance Indicators of State Universities), and data requirements for international accreditation instruments. The results that have been achieved are that the completion rates for 2019 and 2020 are 99.6% and 96.01%, respectively. The next stages that will be carried out are FGD results, preparation of the final report, and dissemination of results.

INTRODUCTION

Rapid changes in the world of work as a result of globalization and revolutions in the fields of information technology, and science, have demanded anticipation and evaluation of the competencies required by the world of work. The relevance (link and match) between the competencies of university graduates and the needs of the world of work is important to the attention of universities and related policy holders. The government through the Ministry of Education and Culture (Kemdikbud) continues to improve the quality and relevance of graduates through the Merdeka Campus policy by setting 8 Main Performance Indicators of State Universities (IKU-PTN). Universitas Pendidikan Ganesha (UNDIKSHA) has a very high commitment to improving quality in global competition as stated in the university's vision. Undiksha's vision is **'To be a Superior University Based on the *Tri Hita Karana* Philosophy in Asia by 2045'**. In line with this vision, UNDIKSHA has a mission: (1) to provide dignified education and teaching to produce competitive and characterized human resources based on the *Tri Hita Karana* philosophy; (2) conducting innovative and competitive research for the development and application of science and technology based on the *Tri Hita Karana* philosophy; and (3) conducting innovative and competitive community service based on the *Tri Hita Karana* philosophy. An innovative and competitive community based on the *Tri Hita Karana* philosophy.

Currently, UNDIKSHA has 67 active study programmes consisting of 11 diploma programmes, 37 undergraduate programmes, 2 professional programmes, 14 master programmes, and 3 doctoral programmes. In a year UNDIKSHA carries out 3 (three) graduation periods, namely the period of March, August and November. The number of graduates for diploma and undergraduate levels in the last 5 years is 11,014 with details per year in a row from 2016 until 2020, namely 2,271, 2,228, 2323, 2,489, and 1,703 graduates. Thus, the average number of UNDIKSHA graduates per year is around 2,200 people, a large enough quantity who will then compete to fill vacancies in the world of work or create their own jobs through entrepreneurship.

One of the ways to evaluate the relevance of higher education and the world of work can be done through Tracer Study. UNDIKSHA has developed an online Tracer Study system since 2013. Until now, the online tracer system is still running. The system is available on the Undiksha website: <https://tracer-study.undiksha.ac.id/>. The implementation of the latest Tracer Study at UNDIKSHA can be described as follows.

- 1) Centralized implementation at the university by the Tracer Study (TS) center under the auspices of UPT PKKM (Student Career Development and Entrepreneurship Technical Implementation Unit).
- 2) The instrument used contains all mandatory questions on the national online TS and is currently updating the instrument in accordance with the latest questions contained in the Kemendikbud Online TS portal (<http://tracerstudy.kemdikbud.go.id/>).
- 3) Since 2018, it has routinely reported the results of the Tracer Study on the <http://tracerstudy.kemdikbud.go.id/> page with 3 consecutive reporting percentages in 2018, 2019, 2020 is 28.09%, 37.48 %, da 21.27%.
- 4) The design and methodology used are nationally standardized, namely the census research design targeting the cohort in the year of graduation.

Based on the results of reflection on the implementation of the Tracer Study that has been carried out, the main obstacles faced include: (1) Some graduates are not contacted because the email addresses and cell phone numbers listed during the exit survey are no longer active, (2) constrained by limited communication costs, mainly costs. pulses to call graduates, when emails/short messages are not answered, another alternative that can be taken is to contact via telephone, but this effort is still limited to being carried out, and (3) data reporting to the Ministry of Education and Culture is still constrained by the incomplete data provided by alumni. The percentage of respondents who filled out the questionnaire was always more than 50%, but only part of it was reported to the Ministry of Education and Culture.

The implementation of the Tracer Study in the Informatics Education Study Programme is carried out in a structured manner following the research flow that has been carried out at UPT PKKM (Student Career Development and Entrepreneurship Technical Implementation Unit) UNDIKSHA in the Tracer Study Field. The implementation method is carried out following the tracking method adopted from UPT PKKM UNDIKSHA which has been socialized. The instrument used to collect data was adopted from UPT PKKM UNDIKSHA on the <https://tracer-study.undiksha.ac.id/> page. The percentage of respondents who filled out the Tracer Study instrument at the Informatics Education Study Programme in 2018 was still below 50% of the total graduates in that year. By adopting several tracking methods from UPT PKKM UNDIKSHA, it is hoped that it can increase the number of respondents who fill out the Tracer Study instrument. The increasing percentage of respondents will have a positive impact on the Input, Output and Outcome

of the Informatics Education Study Programme and become a reference for improving the process of implementing education and learning in the Informatics Education Study Programme.

EXTERNAL TARGET

The subjects of the 2021 Tracer Study are 127 graduates in 2019 and 61 graduates in 2020. Thus, the total subjects of this Tracer Study were 188 respondents. The target number of respondents set by UNDIKSHA for the two cohorts is 80% each. To achieve this target, a timeline of activities from the preparation stage to reporting is drawn up as shown in Table 1 below.

Table 1. Activity Schedule Implementation of Overall Activities

No	Activity Description	Year 2021 march									
		Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Preparatory Stage										
	• compiling work programme										
	• checking the tracer system online										
2	Implementation Stage										
	• monthly meeting with surveyor										
	• sending SMS/email to alumni										
	• updating the status of filling out the questionnaire										
	• contacting alumni by phone										
	• announcement of the closing of filling out the questionnaire										
	• data processing										
	• data analysis										
	• reporting tracer results periodically every month										
	• monev and Technical Assistance										
3	Report Writing Stage										
	• Report writing										
	• Report submission										

TRACER STUDY IMPLEMENTATION

Some of the Tracer Study activities carried out

1. Coordinate with UPT PKKM to request information regarding the Questionnaire used by adopting the 2021 Tracer Study Instrument

The Tracer Study Questionnaire should contain mandatory items from the Higher Education and a supporting Tracer Study questionnaire.

Tracer Study Obligatory questionnaire

1. Please explain your current working status!
[1] Working (full time/part time)
[3] Entrepreneur
[4] Study on post graduate program
[5] Unemployed but at the time of searching for a job
[2] unable to work yet
2. Did you get a job <= 6 months/including work before graduation?
[1] Yes
How long before getting a job?
[2] No
How long before getting a job?

How much is your average take home pay per month?
3. Where is your work location?
Province :
Regency/City:
4. In what kind of company/agency/institution do you work? :
[1] Government institution
[6] BUMN (State owned enterprises)/BUMD (Regionally owned enterprises)
[7] Institution/Multilateral organization
[2] Non-profit organization/Non-Governmental Organization
[3] Private company
[4] Entrepreneur/own company
[5] Other:
5. Please mention the source of funding during college? (not during post graduate) :
[1] own funding/family
[2] ADIK scholarship
[3] BIDIKMISI scholarship
[4] PPA scholarship
[5] AFIRMASI scholarship
[6] Company scholarship/private sector
[7] other:
6. How relevance is the field of study during college with your current work? :
[1] very relevant
[2] relevant
[3] relevant enough
[4] not relevant enough
[5] not relevant at all

7. What level of academic qualification is the most appropriate with/required by your current job?
 - [1] a level higher
 - [2] in the same level
 - [3] a level lower
 - [4] not required higher education qualification
2. Sending Messages about Requests for Filling Out Questionnaires to Alumni via WhatsApp and Telegram Groups

The next stage is intense communication with alumni through graduate groups per study programme. Communication is in the form of greeting/appreciation to alumni who have filled in fully and requesting return for alumni who have not been willing to immediately fill out the questionnaire.

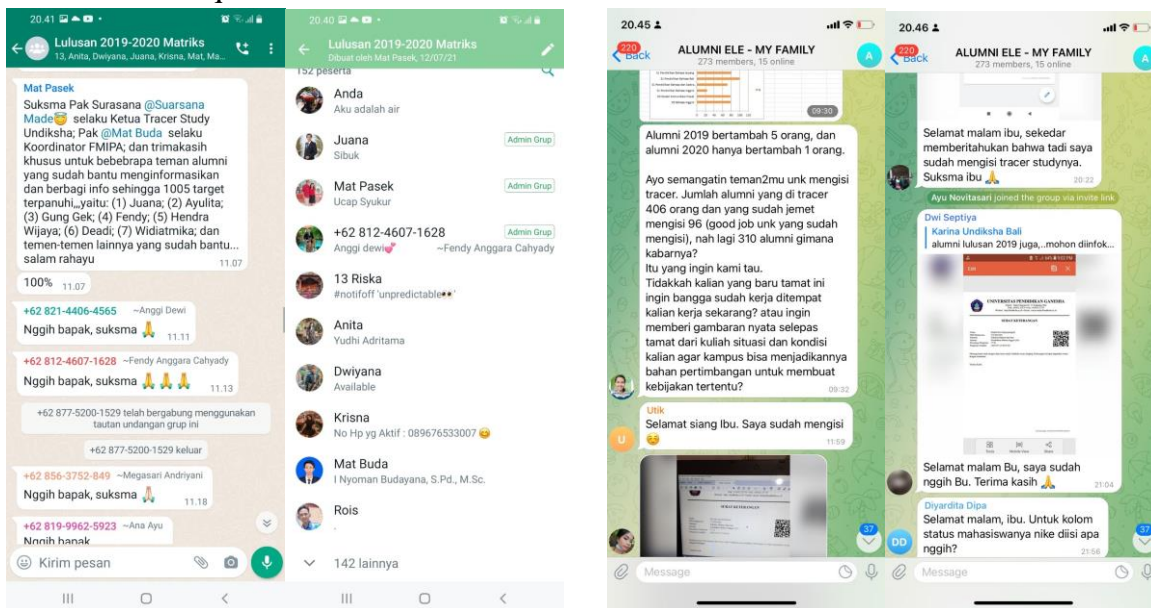


Figure 3. Communication with Graduates Through the Informatics Education Study Programme Graduate Group

3. Update the respondent's achievement per each study programme via the Tracer Study team WhatsApp group

Periodically reporting the progress of respondents' achievements per study programme. Appreciation is given to study programmes that have reached the target above 80%, they are welcome to share tips to achieve a high percentage of respondents to other study programmes.

The screenshot displays the TracerStudy web application interface. On the left is a dark sidebar with navigation links: DASHBOARD, USER, LOG ACTIVITY, INSTRUMEN, LAPORAN, REKAP PENGISIAN, LOWONGAN, and PENGUMUMAN. The main content area shows a table titled 'Rekap Pengisian | Undiksha Tracer' with columns for FAKULTAS, PRODI, and achievement data for 2019 and 2020. The table lists 20 different programs across various faculties, showing the number of respondents (MENGISI) and graduates (LULUSAN) for each year, along with the percentage of achievement (%).

FAKULTAS	PRODI	2019		2020		%
		MENGISI	LULUSAN	MENGISI	LULUSAN	
Fakultas Bahasa dan Seni	Desain Komunikasi Visual (D3)	13	13	1	1	100.00
Fakultas Bahasa dan Seni	Pendidikan Bahasa Inggris (S1)	235	235	171	171	100.00
Fakultas Bahasa dan Seni	Pendidikan Bahasa Jepang (S1)	54	54	24	24	100.00
Fakultas Bahasa dan Seni	Pendidikan Bahasa Bali (S1)	11	11	0	0	100.00
Fakultas Hukum dan Ilmu Sosial	Ilmu Hukum (S1)	56	56	91	91	100.00
Fakultas Matematika dan Ilmu Pengetahuan Alam	Pendidikan Matematika (S1)	81	81	84	84	100.00
Fakultas Teknik dan Kejuruan (FTK)	Teknik Elektronika (D3)	15	15	15	15	100.00
Fakultas Bahasa dan Seni	Bahasa Inggris (D3)	20	21	25	25	97.83
Fakultas Hukum dan Ilmu Sosial	Pendidikan Geografi (S1)	20	21	13	13	97.06
Fakultas Ekonomi	Pendidikan Ekonomi (S1)	68	73	36	36	95.41
Fakultas Ekonomi	Perhotelan (D3)	24	24	17	19	95.35
Fakultas Hukum dan Ilmu Sosial	Pendidikan Sosiologi (S1)	31	34	21	21	94.55
Fakultas Hukum dan Ilmu Sosial	Perpustakaan (D3)	17	19	14	14	93.94
Fakultas Ekonomi	Manajemen (S1)	172	180	158	176	92.70
Fakultas Ekonomi	Akuntansi (D3)	17	18	18	20	92.11
Fakultas Matematika dan Ilmu Pengetahuan Alam	Pendidikan Fisika (S1)	57	61	47	52	92.04
Fakultas Teknik dan Kejuruan (FTK)	Pendidikan Kesejahteraan Keluarga (S1)	31	35	21	22	91.23

Figure 4. Monitoring Percentage of Achievement of Informatics Education Study Programme Periodically

RESULTS THAT HAVE BEEN ACHIEVED

The results achieved so far can be presented as shown in Tables 2 to Table 4 below.

Table 2. Target and Achievement of Respondents of Informatics Education Study Programme (<https://tracer-study.undiksha.ac.id/rekap-pengisian>)

Faculty	Study Programme	2019 Graduates			2020 Graduates		
		Number of Graduates	Number of Respondents	% RR	Number of Graduates	Number of Respondents	% RR
Faculty of Engineering and Vocational	Informatics Education	127	121	95,28	61	58	95,08

Table 3. Descriptive Analysis Results per Question Item (<https://tracer-study.undiksha.ac.id/laporan>)

No.	Question Item	Answer According to TS Results	
		2019 Graduates	2020 graduates
1.	How many months did it take (before and after graduation) to get the first job?	3 months N=94	3 months N=46
2.	Are you currently employed (including part-time jobs and self-employment)?	77,68 % N=121	69,49 % N=59
3.	Approximately how much do you earn each month?	Rp 2.000.000 N=69	Rp 2.000.000 N=40
4.	How closely related is your field of study to your job?	88,54 %	97,56 %
5.	What level of education is most appropriate for your current job?	86,45 %	97,50 %

6.	Graduates who have received scholarships from the Ministry of Education and Culture	Amount per type of scholarship 1. Adik = 0 2. Bidikmisi = 24 3. PPA = 3 4. Affirmation = 0 5. Company/Private = 0	Amount per type of scholarship 1. Adik = 0 2. Bidikmisi = 18 3. PPA = 2 4. Affirmation = 0 5. Company/Private = 0
----	---	--	--

Table 4. Response Rate Recapitulation

	Amount	Percentage	Amount	Percentage
Number of Target Population (a)	127		61	
Total Uncontacted Population (b)	0		0	
Target Subject (c = a – b)	127		61	
Number of Respondents (d)	121		58	
<i>Gross Response Rate</i> {e = (d/a)* 100}		95,27%		95,08%
<i>Net Response Rate</i> {f = (d/c)* 100}		95,27%		95,08%
<i>Completion Rate</i> {subjects who filled out the complete questionnaire from the total respondents (d)}		95,04%		94,82%

CLOSING

Limitations Faced

Obstacles and steps for handling obstacles (corrective actions) in the implementation of TS (Tracer Study)

No	Obstacles	Corrective Actions
1	The contact data of graduates who were filled in during the exit survey (graduation) many of them could not be contacted, both from email data, cellphone numbers and whatsapp numbers.	Involving the study programme coordinator to contact and collect graduates into the graduate Whatsapp group in each study programme.
2	Some graduates did not respond to requests for filling out questionnaires submitted via email blast and wa blast.	Do a reminder via WhatsApp group in each study programme.
3	Some graduates have user and password problems when logging in to the Tracer Study system.	Forming an ICT support team in each faculty tasked with helping graduates who experience problems logging in and filling out questionnaires. This team is also in charge of monitoring the achievement of the percentage of respondents every month.

Other Implementation Notes:

1. When compared to the results of the Tracer Study in the previous year, during this year's tracer implementation, communication with graduates could be more massive because all the graduates who were contacted had joined the study programme WhatsApp Group, where this group was supported by the Study Programme Coordinator not only related to filling out tracer questionnaires but also other information. relevant to the self-development of graduates so that networks with alumni begin to grow and are well-maintained.
2. The percentage of respondents' achievements that have increased this year is also allegedly due to the recruitment of the ASN or *Aparatur Sipil Negara* (State Civil Servants) formation which in its administrative requirements is required to attach a legalized diploma. At UNDIKSHA, there is currently a policy that every graduate who does legalization is required to fill out a Tracer Study questionnaire.

APPENDIX

Evidence of communication with graduates of the Informatics Education Study Programme

The screenshot shows a Facebook post from the group 'DISKUSI PTI-UNDIKSHA'. The post is by Saindra Santyadi, Admin, dated 16 Juli. The text of the post is as follows:

[INFO PENGISIAN TRACER STUDY]
Ayo Lulusan 2019 & 2020!
Ditunggu partisipamu dalam pengisian kuesioner Tracer Study Undiksha 2021.
Partisipamu mendukung upaya peningkatan kualitas pembelajaran dikampus almamater tercinta, Universitas Pendidikan Ganesha.
Pengisian : Juli – Oktober 2021
Untuk info lebih lanjut kalian bisa join di group Telegram via link: <https://go.undiksha.ac.id/ts>

Below the text is a banner for 'Kampus Merdeka' with the text 'AYO SUKSES!!! TRACER STUDY UNDIKSHA 2021 Periode Pengisian Juli - Oktober'.

On the right side, the 'Tentang' (About) section of the group is visible, showing it is a private group with 9+ members.

This screenshot shows the same Facebook group post from Saindra Santyadi, but with the group's sidebar visible on the left. The sidebar includes the group name 'DISKUSI PTI-UNDIKSHA', a 'Beranda' (Home) button, and a 'Fitur Admin' (Admin Features) section with the following items:

- Bantuan Admin (0 tindakan, 0 kriteria)
- Permintaan Anggota (0 baru hari ini)
- Permintaan Lencana (0 baru hari ini)
- Pertanyaan Keanggotaan
- Postingan Menunggu Persetujuan (0 baru hari ini)
- Postingan Terjadwal
- Log Aktivitas

The main post content is the same as in the first screenshot, but the text is slightly different, mentioning 'UNDIKSHA MEMANGGIL' and providing login instructions for the online questionnaire.

