

BAB VI:

KESIMPULAN, KETERBATASAN, DAN PENELITIAN MASA DEPAN

1. Kesimpulan

Penelitian ini dilakukan di Burundi dengan melibatkan warga Burundi yang membantu penulis menguji prototipe yang dirancang untuk memberikan informasi yang diperlukan kepada pasien, seperti menemukan lokasi rumah sakit, mendapatkan dokter yang cocok berdasarkan gejala pasien, dan membuat janji temu online. Sebanyak 221 responden secara sukarela berpartisipasi dalam survei ini dengan mengisi kuesioner formulir Google yang disebarakan kepada mereka melalui media sosial. Jumlah laki-laki yang merespons lebih tinggi daripada perempuan dan terjadi secara tidak terduga selama percobaan. Mayoritas responden berusia di bawah 35 tahun, menunjukkan bahwa individu yang berpartisipasi dalam survei masih muda, energik, dan lahir di era teknologi ini.

Fitur dan fungsi kompleks dari prototipe aplikasi sepenuhnya dikembangkan, dinilai, dan diuji pada perangkat *mobile* yang mendukung OS Android menggunakan Cloud Adobe XD. Adobe XD telah digunakan untuk merancang desain aplikasi *mobile* untuk pasien di Burundi karena merupakan salah satu perangkat lunak yang banyak digunakan untuk membuat prototipe baik untuk aplikasi Windows, Mac Os, Android, atau iOS. Analisis ini membantu menjawab pertanyaan penelitian utama, termasuk pengembangan aplikasi *mobile* bimbingan telemedis untuk pasien berdasarkan gejala mereka dengan menerapkan kode QR.

Penelitian ini dimaksudkan untuk memeriksa validitas dan reliabilitas prototipe yang dirancang untuk kepuasan pengguna. Temuan pada penelitian ini mengungkapkan bahwa 88% responden menerima prototipe yang dikembangkan. Selain itu, hasil menunjukkan tingkat

penerimaan untuk melanjutkan aplikasi ke tahap implementasi berikutnya. Dalam hal menggunakan aplikasi *mobile* untuk pasien daripada membuat kesalahan selama bimbingan, temuan mengungkapkan bahwa pengguna memahami tujuan penelitian.

2. Keterbatasan studi

- a) Aplikasi *mobile* yang dirancang pada sistem *OS Android*. Dengan demikian, pengguna perlu memiliki ponsel pintar berbasis *android* untuk menggunakan aplikasi *mobile*.
- b) Pengguna membutuhkan internet untuk mengakses aplikasi *mobile*.
- c) Informasi yang terkandung dalam desain ini terbatas, seperti Rumah Sakit dan gejala yang digunakan.

3. Penelitian di masa yang akan datang

Penelitian ini mengembangkan desain aplikasi *mobile*, yang memungkinkan penelitian di masa depan dapat dengan lebih mudah dalam pengembangan aplikasi *mobile*. Selain itu, pengembang dapat menambahkan banyak informasi terkait dengan rumah sakit dan gejala. Karena dalam penelitian ini, kami hanya memfokuskan pada empat rumah sakit umum dan beberapa gejala yang dapat ditangani oleh dokter yang berbeda sehingga tugas akhir ini dapat mempermudah tugas pasien dan tenaga kesehatan.

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LAMPIRAN

Lampiran 1. Subject: Application for a validation of research instrument

September 05, 2021

Supervisors / Head of Informatics Masters Study Program

Greetings,

I would like to request the validation of the research instrument for my thesis entitled "**A TELEMEDICINE GUIDANCE MOBILE APPLICATION DESIGN FOR PATIENTS BASED ON SYMPTOMS IN BURUNDI USING QR CODE.**" The following questionnaire will be used as an instrument in the highlighted research. Given this, the researcher would like your expertise to validate the attached questionnaires to qualify for conduction. The study adopted the questionnaire entitled: "DESIGN OF MOBILE APPLICATION FOR COMMUNITY HEALTH WORKERS: A CASE STUDY OF RWANDA" with few improvements. Knowing your experience in the field of research, I would like to ask for your help in validating the said instrument before administering it to the participants of this study.

I have attached the research summary to make the questionnaire understandable; if my questions had been made based on the research purpose, the questionnaire is in the table. I will be glad to hear your suggestions and comments for the improvement of the instrument. I am looking forward that my request would merit your positive response. Your positive response is highly appreciated.

Thank you, and God bless you and your family, especially during this pandemic period.

Very truly yours,

Igor Didier Sabukunze

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Problem statement

Due to lack of information, some patients get lost while going to the hospital because, until today, several hospitals cannot be found on google map. Therefore, some patients still used the old technic of asking people for direction. They even present their symptoms to the receptionist, asking them guidance to the doctor they can go to for treatment. This technic is not authentic because it tends to make mistakes by sending patients to the wrong doctor. These receptionists also got distracted by patients while guiding them to the doctor. Besides, they spend a lot of time making queues.

Research Objectives

This manuscript aims to design a healthcare guidance mobile application for patients based on symptoms in Burundi using QR codes. This study will benefit Burundians by providing patient symptoms to be treated by a suitable doctor on his mobile application. In addition, to save time, patients may do online registration and be given a QR code scanned by the receptionist when they reach the hospital before meeting the doctor.

Methodology

- This study applies a quantitative research approach to challenge participants' questions and prepare data to clarify whether the proposed design responds to intended users.
- Data was collected by the researcher and has not been previously collected or published using the questionnaire method. Google form helps to get feedback from participants.

The questionnaire consisted of **25 items** used to evaluate the validity and reliability using a Likert scale ranging from Strong disagree = 1, Disagree = 2, Less agreeable = 3, Agree = 4, and strongly agree. = 5.

- The study participants were 221, with a total sample size of 250 from Bujumbura, the most populous region in Burundi, with more than 1million residents.
- The results of the questionnaire will use to test the reliability and validity of mobile application design. Adobe XD desktop application, Adobe creative cloud, and the Adobe XD software was used for designing the mobile application to guide the patients because they are open-source software that makes it easy to test the designed prototype over the android mobile phone.

Content of the questionnaire

English Version

Ladies /Gentlemen,

We are conducting a research entitled A TELEMEDICINE GUIDANCE MOBILE APPLICATION DESIGN FOR PATIENTS BASED ON SYMPTOMS IN BURUNDI USING QR CODE. The researchers note that: Due to a lack of information, some patients get lost on their way to the hospital because, until today, several hospitals cannot be found on google map. As a result, some patients still use the old technique of asking people for directions. They even present their symptoms to the receptionists of the Hospitals, asking them for advice to the doctor whom they can consult for treatment. This technique is not genuine as it tends to make mistakes by sending patients to the wrong doctor. These receptionists are also disturbed by the patients while guiding them to the doctor.

The menus of the said mobile application can be seen in this link:
<https://www.youtube.com/watch?v=NmPHrTzHtDE>

The questionnaire is designed to obtain information regarding the approval for the design of this mobile application. The results of this questionnaire will be used for academic purposes only.

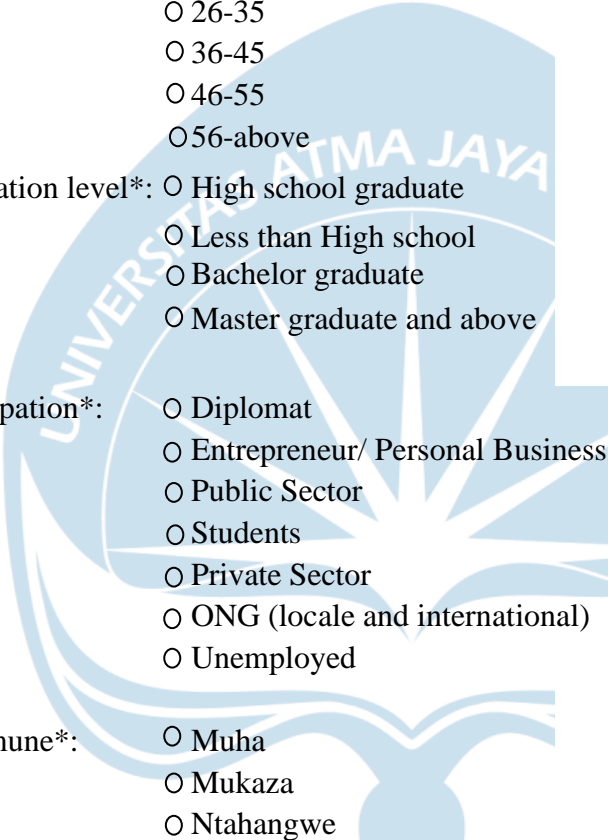
This questionnaire can be completed in approximately 5 to 10 minutes.

We would be grateful if you could answer the question honestly. Thank you for your collaboration.

For more details, don't hesitate to contact the researcher at his email address below if you have any questions regarding this questionnaire: sigordidier2020@gmail.com.

Part one of the questionnaire: Sociodemographic characteristics of participants

* Required

- 
1. Gender*:
- Female
 - Male
2. Age*:
- 16-25
 - 26-35
 - 36-45
 - 46-55
 - 56-above
3. Education level*:
- High school graduate
 - Less than High school
 - Bachelor graduate
 - Master graduate and above
4. Occupation*:
- Diplomat
 - Entrepreneur/ Personal Business
 - Public Sector
 - Students
 - Private Sector
 - ONG (locale and international)
 - Unemployed
5. Commune*:
- Muha
 - Mukaza
 - Ntakangwe

Part two of the questionnaire: Questions related to the design

| 1: Strong disagree | 2: Disagree | 3: Less agree | 4: Agree | 5: Strong agree |

N ^o	Questions	Scale				
		1	2	3	4	5
PERSPICUITY						
1	The design of this application will provide me information regarding hospitals, such as a list of hospitals and their services*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	The design of this mobile application will help to get the direction of the hospitals*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	The design of this mobile application will provide me information related to symptoms and doctors*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	The design of this application will help me to understand whose doctor is suitable to treat my symptoms*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	The design of this application will help to get an online appointment for saving a waste of time and be provided with a QR code*.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	The design of this application will save the medical record*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	The design of this application will help me to make online consultation*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	The design of this application will provide me pharmacies list*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	With the design of this application, I will be able to make a call for help(Ambulance, Police, Firefighter, Traffic Police) *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ATTRACTIVENESS						
10	The design of this application is good or convenient for my needs as a user*.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11	I am satisfied with the overall design of this application *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12	This application designed is user-friendly*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13	I would recommend this application design to other health communities*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EFFICIENCY						
14	The design of this application is practical to provide me information related to needed by a user*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15	The design of this application is efficient*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16	The design of this application is organized*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17	The presented design of this application increased my understanding of knowing suitable doctors based on my symptoms*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
STIMULATION						
18	Has the design of this application had an extraordinary significance to the Burundian community?*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19	The design of this application is supportive by providing the information needed by the patients*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20	The design of this application seems to be enjoyable*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21	The design of this application is attractive in daily need to the hospitals*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
NOVELTY						

N°	Questions	Scale				
		1	2	3	4	5
22	The design of this application is innovative*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23	The design of this application will be inventive in Burundi*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24	Do you think the development of this mobile application will be new for patients in Burundi?*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25	The development of this mobile application will be helpful in the Burundian community*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

French Version

Messieurs/Mesdames/Mesdemoiselles,

Nous menons une recherche sur UNE CONCEPTION D'APPLICATION MOBILE DE GUIDAGE DE TÉLÉMÉDECINE POUR LES PATIENTS BASÉE SUR DES SYMPTMES AU BURUNDI À L'AIDE DU QR CODE. Les chercheurs ont constaté que, par manque d'information, certains patients se perdent en se rendant à l'hôpital car, jusqu'à aujourd'hui, plusieurs hôpitaux sont introuvables sur google map. Par conséquent, certains patients utilisent encore l'ancienne technique consistant à demander aux gens leur direction. Ils présentent même leurs symptômes aux réceptionnistes des Hôpitaux, leur demandant des conseils au médecin qu'ils peuvent consulter pour se faire soigner. Cette technique n'est pas authentique car elle a tendance à commettre des erreurs en envoyant les patients au médecin inapproprié. Ces réceptionnistes sont également dérangés par les patients tout en les guidant vers le médecin.

Les menus de ladite application mobile peuvent être vus dans ce lien : <https://www.youtube.com/watch?v=NmPHrTzHtDE>

Le questionnaire est conçu pour obtenir des informations concernant l'approbation pour la conception cette application mobile. Les résultats de ce questionnaire seront utilisés à des fins académiques seulement.

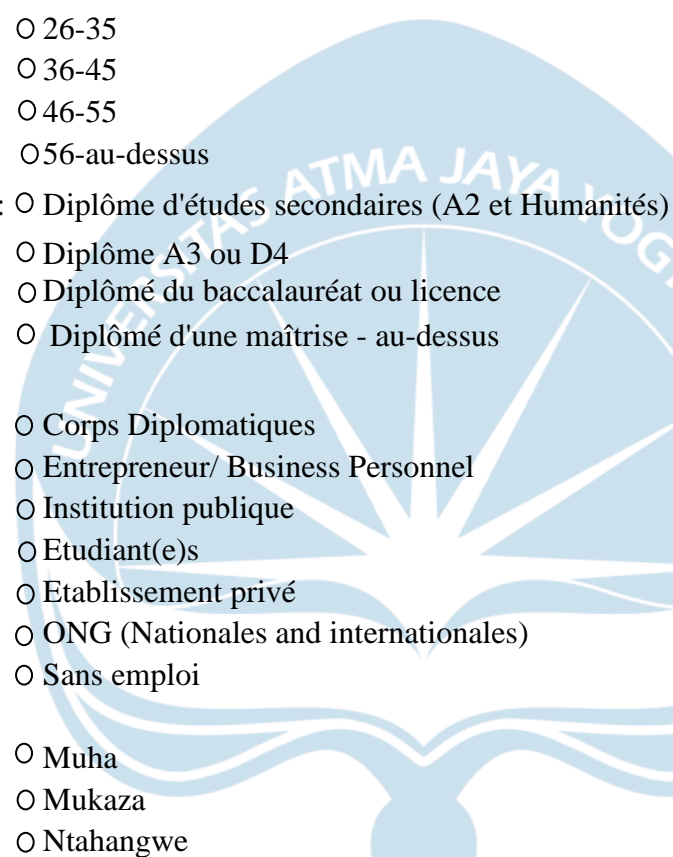
Ce questionnaire peut être complété de 5 à 10 minutes environ.

Nous vous serions reconnaissants de répondre honnêtement à la question. Merci de votre collaboration.

Pour plus de détails, veuillez contacter le chercheur sur son adresse e-mail ci-dessous si vous avez des questions concernant ce questionnaire : sigordidier2020@gmail.com.

Première partie du questionnaire : Caractéristiques sociodémographiques des participants

* Obligatoire

1. Sexe*:
- Femme
 - Homme
2. Age*:
- 16-25
 - 26-35
 - 36-45
 - 46-55
 - 56-au-dessus
3. Education level*:
- Diplôme d'études secondaires (A2 et Humanités)
 - Diplôme A3 ou D4
 - Diplômé du baccalauréat ou licence
 - Diplômé d'une maîtrise - au-dessus
6. Occupation*:
- Corps Diplomatiques
 - Entrepreneur/ Business Personnel
 - Institution publique
 - Etudiant(e)s
 - Etablissement privé
 - ONG (Nationales and internationales)
 - Sans emploi
7. Commune*:
- Muha
 - Mukaza
 - Ntahangwe
- 

Deuxieme partie du questionnaire: Questions liées à la conception

1: Fortement en désaccord	2: En désaccord	3: Moins d'accord/ Neutre	4: D'accord	5: Fortement d'accord
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N°	Questions	Scale				
		1	2	3	4	5
PERSPICUITY						
1	La conception de cette application me fournira des informations concernant les hôpitaux tels que la liste des hôpitaux et leurs services*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	La conception de cette application mobile m'aidera à obtenir la direction des hôpitaux*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	La conception de cette application mobile me fournira des informations relatives aux symptômes et aux médecins*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	La conception de cette application m'aidera à comprendre quel médecin est apte à traiter mes symptômes*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	La conception de cette application permettra d'obtenir un rendez-vous en ligne pour gagner du temps et de disposer d'un QR code*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	La conception de cette application permettra de sauvegarder le traitement précédent*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	La conception de cette application va m'aider à faire des consultations en ligne(chat avec un Medecin)*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	La conception de cette application me fournira la liste des pharmacies*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	9. Avec la conception de cette application, je pourrai faire un appel au secours (Ambulance,Police, Pompier, Police de la circulation)*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ATTRACTIVENESS						
10	La conception de cette application est bonne ou pratique pour mes besoins en tant qu'utilisateur.*.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11	Je suis satisfait de l'ensemble de la conception de cette application*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12	Cette application conçue est conviviale*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13	Je recommanderais cette conception d'application à d'autres communautés de santé*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EFFICIENCY						
14	La conception de cette application est pratique pour me fournir des informations liées aux besoins d'un utilisateur*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15	La conception de cette application est efficace *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16	La conception de cette application est organisée *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17	La conception présentée de cette application a augmenté ma compréhension de la connaissance des médecins appropriés en fonction de mes symptômes *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
STIMULATION						
18	La conception de cette application a-t-elle une signification extraordinaire pour la communauté burundaise?*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

N°	Questions	Scale				
		1	2	3	4	5
19	La conception de cette application est favorable en fournissant les informations nécessaires aux patients *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20	Le design de cette application semble agréable *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21	La conception de cette application est attractive dans le besoin quotidien des hôpitaux *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
NOVELTY						
22	La conception de cette application est innovative *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23	La conception de cette application sera inventive au Burundi *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24	Pensez-vous que le développement de cette application mobile sera nouveau pour les patients au Burundi ??*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25	Le développement de cette application mobile sera utile à la communauté burundaise *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Lampiran 2. Validity of the Instrument

Table 4. Correlations

		PER SP1	PER SP2	PER SP3	PER SP4	PER SP5	PER SP6	PER SP7	PER SP8	PER SP9	AT TR1	AT TR2	AT TR3	AT TR4	EFF 1	EFF 2	EFF 3	EFF 4	STI M1	STI M2	STI M3	STI M4	NV T1	NV T2	NV T3	NV T4	Tota l
PERSPIC UITY	Pearson Correlati on	1																									.660 **
PERSPIC UITY	Pearson Correlati on	.549 **	1																								.576 **
PERSPIC UITY	Pearson Correlati on	.461 **	0.22 1	1																							.805 **
PERSPIC UITY	Pearson Correlati on	.664 **	.674 **	0.27 6	1																						.514 **
PERSPIC UITY	Pearson Correlati on	.745 **	.448 **	.686 **	.509 **	1																					.864 **
PERSPIC UITY	Pearson Correlati on	.783 **	.607 **	.414 **	.538 **	.708 **	1																				.650 **
PERSPIC UITY	Pearson Correlati on	.491 **	.404 *	.711 **	.360 *	.748 **	.445 **	1																			.868 **
PERSPIC UITY	Pearson Correlati on	.769 **	.449 **	.540 **	.350 *	.640 **	.724 **	.548 **	1																		.610 **
PERSPIC UITY	Pearson Correlati on	.449 **	0.21 9	.424 **	0.31 2	.559 **	.403 *	.477 **	.399 *	1																	.562 **
ATTRAC TIVENES S	Pearson Correlati on	.518 **	.628 **	0.28 4	.638 **	.409 *	.582 **	0.26 4	.454 **	0.28 1	1																.566 **
ATTRAC TIVENES S	Pearson Correlati on	.497 **	.494 **	.522 **	0.30 3	.540 **	.612 **	.700 **	.654 **	.354 *	.518 **	1															.708 **
ATTRAC TIVENES S	Pearson Correlati on	.518 **	.578 **	.612 **	.365 *	.630 **	.517 **	.731 **	.515 **	.421 **	.548 **	.691 **	1														.858 **
ATTRAC TIVENES S	Pearson Correlati on	.397 *	.453 **	.699 **	.333 *	.737 **	.449 **	.750 **	0.30 9	.442 **	.337 *	.500 **	.679 **	1													.865 **

EFFICIEN CY	Pearson Correlati on	.432 **	.457 **	.644 **	0.19 6	.742 **	.479 **	.763 **	.380 *	.441 **	0.30 6	.501 **	.727 **	.853 **	1													.849 **	
EFFICIEN CY	Pearson Correlati on	.493 **	.423 **	.790 **	.387 *	.763 **	.491 **	.856 **	.477 **	.478 **	.445 **	.631 **	.836 **	.846 **	.810 **	1													.944 **
EFFICIEN CY	Pearson Correlati on	.461 **	.392 *	.678 **	.324 *	.682 **	.457 **	.838 **	.399 *	.411 *	.361 *	.590 **	.835 **	.806 **	.801 **	.947 **	1												.884 **
EFFICIEN CY	Pearson Correlati on	.402 *	.453 **	.594 **	.368 *	.625 **	.434 **	.712 **	.374 *	.397 *	.540 **	.564 **	.835 **	.675 **	.771 **	.888 **	.836 **	1											.834 **
STIMULA TION	Pearson Correlati on	.434 **	0.26 0	.808 **	.385 *	.706 **	.429 **	.729 **	.455 **	.504 **	.508 **	.581 **	.638 **	.681 **	.671 **	.863 **	.751 **	.751 **	1										.839 **
STIMULA TION	Pearson Correlati on	.400 *	0.19 9	.746 **	0.22 6	.695 **	.343 *	.798 **	.390 *	.457 **	.356 *	.517 **	.658 **	.790 **	.766 **	.850 **	.803 **	.705 **	.836 **	1									.843 **
STIMULA TION	Pearson Correlati on	.568 **	.347 *	.661 **	0.31 6	.782 **	.531 **	.769 **	.432 **	.425 **	.403 *	.522 **	.697 **	.808 **	.800 **	.870 **	.854 **	.740 **	.720 **	.874 **	1								.870 **
STIMULA TION	Pearson Correlati on	.431 **	.343 *	.824 **	0.25 2	.711 **	.379 *	.864 **	.559 **	.440 **	0.29 4	.584 **	.731 **	.797 **	.772 **	.892 **	.844 **	.711 **	.772 **	.811 **	.747 **	1							.875 **
NOVELT Y	Pearson Correlati on	.322 *	0.32 0	.757 **	0.18 1	.674 **	.371 *	.743 **	0.28 4	.391 *	0.21 4	.568 **	.656 **	.871 **	.769 **	.761 **	.724 **	.575 **	.641 **	.776 **	.736 **	.784 **	1						.808 **
NOVELT Y	Pearson Correlati on	.344 *	.332 *	.740 **	0.25 4	.702 **	.394 *	.686 **	0.25 2	.440 **	.325 *	.496 **	.729 **	.829 **	.827 **	.777 **	.737 **	.705 **	.682 **	.756 **	.718 **	.766 **	.926 **	1					.830 **
NOVELT Y	Pearson Correlati on	.334 *	.594 **	.645 **	.440 **	.518 **	0.27 1	.510 **	0.22 7	0.26 6	.552 **	.374 *	.710 **	.718 **	.664 **	.710 **	.629 **	.692 **	.611 **	.653 **	.625 **	.668 **	.702 **	.763 **	1				.758 **
NOVELT Y	Pearson Correlati on	.596 **	.564 **	.613 **	.469 **	.724 **	.522 **	.598 **	.553 **	.383 *	.459 **	.471 **	.724 **	.723 **	.561 **	.677 **	.642 **	.500 **	.506 **	.522 **	.625 **	.701 **	.606 **	.596 **	.629 **	1			.763 **
Total	Pearson Correlati on	.660 **	.576 **	.805 **	.514 **	.864 **	.650 **	.868 **	.610 **	.562 **	.566 **	.708 **	.858 **	.865 **	.849 **	.944 **	.884 **	.834 **	.839 **	.843 **	.870 **	.875 **	.808 **	.830 **	.758 **	.763 **	1		.763 **
	Sig. (2- tailed)	0.00 0	0.00 0	0.00 0	0.00 1	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	
	N	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Lampiran 3. Validity of the prototype

Table 6. Correlations

		PER SP1	PER SP2	PER SP3	PER SP4	PER SP5	PER SP6	PER SP7	PER SP8	PER SP9	AT TR1	AT TR2	AT TR3	AT TR4	EFF 1	EFF 2	EFF 3	EFF 4	ST1 M1	ST1 M2	ST1 M3	ST1 M4	NV T1	NV T2	NV T3	NV T4	Total
PERSPIC UITY	Pearson Correlation	1																									.702**
PERSPIC UITY	Pearson Correlation	.698**	1																								.706**
PERSPIC UITY	Pearson Correlation	.482**	.477**	1																							.759**
PERSPIC UITY	Pearson Correlation	.492**	.478**	.630**	1																						.700**
PERSPIC UITY	Pearson Correlation	.528**	.508**	.650**	.603**	1																					.748**
PERSPIC UITY	Pearson Correlation	.404**	.458**	.411**	.551**	.557**	1																				.657**
PERSPIC UITY	Pearson Correlation	.381**	.409**	.468**	.521**	.517**	.581**	1																			.711**
PERSPIC UITY	Pearson Correlation	.599**	.627**	.475**	.423**	.515**	.538**	.530**	1																		.738**
PERSPIC UITY	Pearson Correlation	.440**	.476**	.489**	.440**	.406**	.433**	.513**	.564**	1																	.668**
ATTRACTIVENESS	Pearson Correlation	.528**	.530**	.585**	.594**	.535**	.501**	.510**	.615**	.526**	1																.774**
ATTRACTIVENESS	Pearson Correlation	.583**	.576**	.617**	.550**	.565**	.503**	.621**	.681**	.549**	.699**	1															.833**
ATTRACTIVENESS	Pearson Correlation	.558**	.582**	.608**	.503**	.582**	.494**	.526**	.581**	.504**	.664**	.767**	1														.834**
ATTRACTIVENESS	Pearson Correlation	.576**	.558**	.601**	.504**	.639**	.484**	.523**	.576**	.441**	.657**	.712**	.721**	1													.829**
EFFICIENCY	Pearson Correlation	.579**	.552**	.665**	.517**	.686**	.456**	.565**	.552**	.506**	.655**	.702**	.770**	.795**	1												.859**

EFFICIEN CY	Pearson Correlati on	.621 **	.579 **	.618 **	.564 **	.577 **	.492 **	.604 **	.605 **	.520 **	.642 **	.674 **	.744 **	.747 **	.741 **	1									.859 **		
EFFICIEN CY	Pearson Correlati on	.482 **	.463 **	.583 **	.533 **	.521 **	.429 **	.478 **	.500 **	.417 **	.508 **	.585 **	.608 **	.609 **	.669 **	.709 **	1								.757 **		
EFFICIEN CY	Pearson Correlati on	.491 **	.543 **	.589 **	.650 **	.498 **	.556 **	.636 **	.568 **	.561 **	.628 **	.690 **	.681 **	.676 **	.686 **	.726 **	.675 **	1							.826 **		
STIMULA TION	Pearson Correlati on	.559 **	.502 **	.618 **	.486 **	.566 **	.403 **	.505 **	.615 **	.517 **	.638 **	.697 **	.656 **	.731 **	.692 **	.749 **	.576 **	.643 **	1						.802 **		
STIMULA TION	Pearson Correlati on	.524 **	.546 **	.607 **	.471 **	.644 **	.528 **	.505 **	.546 **	.500 **	.540 **	.658 **	.758 **	.714 **	.742 **	.750 **	.607 **	.630 **	.687 **	1					.823 **		
STIMULA TION	Pearson Correlati on	.514 **	.472 **	.562 **	.462 **	.490 **	.476 **	.533 **	.524 **	.503 **	.562 **	.571 **	.580 **	.555 **	.632 **	.633 **	.673 **	.627 **	.574 **	.653 **	1				.762 **		
STIMULA TION	Pearson Correlati on	.553 **	.538 **	.645 **	.551 **	.531 **	.497 **	.637 **	.635 **	.546 **	.618 **	.710 **	.679 **	.678 **	.756 **	.743 **	.639 **	.754 **	.715 **	.712 **	.689 **	1			.853 **		
NOVELT Y	Pearson Correlati on	.467 **	.449 **	.494 **	.346 **	.582 **	.403 **	.428 **	.431 **	.404 **	.389 **	.576 **	.632 **	.618 **	.657 **	.565 **	.525 **	.459 **	.563 **	.683 **	.548 **	.588 **	1		.705 **		
NOVELT Y	Pearson Correlati on	.488 **	.497 **	.537 **	.443 **	.552 **	.417 **	.523 **	.477 **	.515 **	.550 **	.551 **	.532 **	.598 **	.635 **	.578 **	.535 **	.562 **	.540 **	.571 **	.595 **	.654 **	.658 **	1	.741 **		
NOVELT Y	Pearson Correlati on	.406 **	.499 **	.543 **	.450 **	.503 **	.406 **	.409 **	.392 **	.527 **	.576 **	.483 **	.603 **	.548 **	.627 **	.599 **	.569 **	.536 **	.486 **	.576 **	.543 **	.564 **	.568 **	.690 **	1	.709 **	
NOVELT Y	Pearson Correlati on	.606 **	.565 **	.476 **	.462 **	.562 **	.442 **	.431 **	.584 **	.383 **	.579 **	.609 **	.638 **	.656 **	.628 **	.642 **	.506 **	.532 **	.636 **	.640 **	.542 **	.655 **	.566 **	.544 **	.505 **	1	.741 **
Total	Pearson Correlati on	.702 **	.706 **	.759 **	.700 **	.748 **	.657 **	.711 **	.738 **	.668 **	.774 **	.833 **	.834 **	.829 **	.859 **	.859 **	.757 **	.826 **	.802 **	.823 **	.762 **	.853 **	.705 **	.741 **	.709 **	.741 **	1
	Sig. (2- tailed)	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
	N	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221

**. Correlation is significant at the 0.01 level (2-tailed).