

Instrument for Evaluating Clinical Skill laboratory Teacher's Didactical Performance

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ABSTRACT

Introduction: There are some studies about strategies for clinical skills teachers and criteria for effective teaching in a Skills lab (Duvivier et al., 2009; Martens et al., 2009). However, there isn't an established instrument yet to evaluate clinical skills teacher's didactical performance while facilitating skills learning.

Aim: the aim of this study is to develop an appropriate instrument to evaluate clinical skills teachers' didactical performance.

Method: A mixed method design study. First a preliminary instrument was developed from guidelines available in literature. This instrument was applied by students, to quantitatively evaluate didactical performance of skills teachers who teach a certain skill. Then focus group discussions (FGD) were conducted. The results of both procedures were compared.

Results: 255 First year medical students participated (response rate: 91%). There was significant difference between students' judgments of clinical teacher's (specialist) and Skills lab teacher's (general practitioner) didactical performance ($p < 0.05$). This quantitative finding was supported by qualitative results. 32 Students were involved in FGD. Information from the FGD saturated (no more new information emerged). Cronbach's alpha of the instrument turned out to be .95, indicating a high homogeneity. All items contributed to this measure of reliability.

Conclusion: The questionnaire developed was valid and reliable. It can be concluded that characteristics of a proper instrument for evaluating clinical skills teachers' didactical performance encompass didactic skill, interpersonal & communication skills and condition/strategy of skills training

Keywords: instrument, evaluation, clinical skill training, Skills lab, didactical performance

ABSTRAK

Latar Belakang: Terdapat beberapa penelitian di bidang pendidikan kedokteran khususnya yang membahas tentang instruktur keterampilan klinik, strategi para instruktur keterampilan klinik serta kriteria dalam mengajar secara efektif di laboratorium keterampilan klinik (Duvivier et al., 2009; Martens et al., 2009). Namun hingga kini belum terdapat suatu alat (instrumen) yang secara khusus mengevaluasi performa mengajar para instruktur keterampilan klinik dalam memfasilitasi pembelajaran keterampilan klinik di skillslab.

Tujuan: Tujuan penelitian ini adalah untuk mengembangkan suatu alat (instrumen) untuk mengevaluasi performa mengajar instruktur keterampilan klinik tersebut.

Metode: Penelitian ini menggunakan *mixed method design*. Langkah pertama adalah penyusunan instrumen yang dibuat berdasarkan guideline, informasi serta teori yang terdapat dalam literatur yang ada. Instrumen yang dihasilkan diberikan kepada mahasiswa untuk mengevaluasi secara kuantitatif, performa mengajar instruktur skillslab pada skills tertentu. Selanjutnya dilakukan *focus group discussion* (FGD) kepada para mahasiswa tersebut untuk menilai performa mengajar instruktur skillslab secara kualitatif. Hasil dari kedua pendekatan tersebut dibandingkan.

Hasil: Sebanyak 255 mahasiswa kedokteran tingkat pertama berpartisipasi dalam penelitian ini (respon rate: 91%). Terdapat perbedaan penilaian mahasiswa terhadap performa mengajar para instruktur klinis (dokter spesialis) dibandingkan dengan para instruktur non klinis (dokter umum) ($p < 0.05$). Hasil kuantitatif ini didukung oleh hasil kualitatif. Sebanyak 32 mahasiswa kedokteran tingkat pertama terlibat dalam FGD. FGD dilakukan sampai tidak terdapat informasi baru yang dihasilkan. Pada penilaian reliabilitas kuesioner, nilai cronbach alpha yang dihasilkan adalah sebesar 0.95. Hal ini menunjukkan tingkat

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homogenitas item dalam instrumen penilaian yang sangat tinggi. Semua item memberikan kontribusi yang sama dalam menghitung reliabilitas instrumen penilaian.

Kesimpulan: Kuesioner penilaian performa instruktur keterampilan klinik dalam memfasilitasi pembelajaran keterampilan klinik di skillslab telah dikembangkan, dan dapat dikatakan *valid* dan *reliable*. Karakteristik instrumen yang sesuai untuk menilai performa mengajar instruktur keterampilan klinik meliputi keterampilan mengajar, keterampilan komunikasi & keterampilan interpersonal serta kondisi/strategi fasilitasi pembelajaran keterampilan klinik.

Kata kunci: instrument penilaian, evaluation, skillslab, performa mengajar instruktur skillslab

INTRODUCTION

Clinical skills centers (or Skills labs) have been known over years as safe places to prepare medical students for patient encounters (Harden, 2005). Many skills are learnt by students in a Skills lab, encompassing communication skills, physical examination skills, laboratory examination skills, therapeutics and procedural examination skills (Claramita & Widyandana, 2007; Suryadi, 2008). The educational format can be seen as a step by step approach toward integration, in order to achieve competency as medical doctor (IMC, 2006).

A Skills lab is an important place for students to learn and prepare themselves to achieve competency (Harden, 2005). Skills acquisition is different from cognitive learning in which students are able to learn by themselves; in contrast, during skills learning they need guidance from a teacher (Suryadi, 2008; Duvivier et al., 2009). Students cannot learn skills by themselves without guidance or supervision (often in the form of a role model). The role of teachers therefore, becomes very important during skills teaching.

The most important roles of clinical skills teachers are providing constructive feedback and guiding students to reflect on their practiced skills (Claramita & Widyandana, 2007) as well as facilitating and activating a group to ensure the students' progress during practice (Widyandana & Rahmawati, 2008). Basic knowledge needed to be a clinical skills teacher are: background of the patient (scenario) which is used, relation between skills taught and application in the future, prior knowledge of students, principles of teaching skills and knowledge of the case as a study tools. In addition,

skills needed to be a clinical skills teacher are communication skills (to ask, to explain and to report), acquisition skills (to hear, to observe, to find & to collect data), procedural skills (to use instrument and to demonstrate), organization skills (to compare, to classify, to arrange system) and transfer skills (to apply knowledge that students get from lecture into practice to real setting)(Irby, 1994; Suryadi, 2008).

There are some studies about strategies for clinical skills teachers and criteria for effective teaching in a Skills lab (Duvivier et al., 2009; Martens et al., 2009). However, an established instrument to evaluate clinical skills teacher's didactical performance during facilitating skill learning is lacking. It is important to develop such an instrument, taking the students' opinion into account about the teachers' teaching skills (Widyandana & Rahmawati, 2008). The instrument will be an appropriate tool for evaluating teacher's didactical performance. Evaluation results will be useful for providing feedback to teachers as well as a part of faculty development program.

A variety of teaching formats may help differentiate between more and less instructive skills teaching. If an instrument would be able to differentiate between different types of teaching interventions, this would support the instrument's validity. We therefore formulated the following research question:

- *What are the characteristics of a proper instrument for evaluating clinical skills teachers' didactical performance?*

We developed a preliminary instrument for evaluating clinical Skills laboratory teacher's didactical performance, using guidelines from literature (Duvivier

et al., 2009; Martens et al., 2009). Next we conducted validity and reliability tests with this preliminary instrument. This study is restricted to the development of the instrument. The result of teacher performance is not highlighted.

CONTEXT OF STUDY

This study was conducted in Skills lab Faculty of Medicine, Universitas Gadjah Mada, Yogyakarta, Indonesia which applies a 5 years competence based curriculum since 2007. This curriculum is provided to both a regular class and an international class. The basic differences between the regular and international classes are the origin country of students and the language which is used to deliver the lessons. During the first 3.5 years of undergraduate training, students study in a medical context, including learning in the Skills lab, in order to allow for maximal transfer to achieve competency as a medical doctor (Claramita & Widyandana, 2007).

The curriculum is organized in 7 weeks blocks. Every week, students in fixed groups of 10 are scheduled to study in the Skills lab. During these obligatory skills trainings, each group of student is guided by a clinical skills teacher. The clinical skills teacher could be a specialist or general practitioner. There are different characteristics between specialist and general practitioner in teaching. The differences are: The specialists have deeper knowledge and understanding about special topics in comparison to general practitioner; The specialists are more experienced in teaching rather than general practitioner.

In order to reach uniformity of skills teaching, the clinical skills teachers' are invited to follow the specific training a week before the running of skills training. Also, the Skill lab management staff provides standard lesson plans, guidance for teachers during Skill lab session as well as Skill lab manual books that is distributed to the students too.

METHODS

SETTING

This study was conducted in the Skillslab of the Faculty of Medicine, Universitas Gadjah Mada, Yogyakarta,

Indonesia. A preliminary instrument was composed by adapting outcomes from previous studies to ensure content validity (Irby, 1994; Suryadi, 2008; Martens et al., 2009; Duvivier et al., 2009). This version of the instrument consisted of 19 items, to be answered on a Likert scale (1-5) consist of: 1 = very poor, 2 = poor, 3 = middle, 4 = good, 5 = very good, and NA = Not Applicable. A Likert scale is appropriate for quantifying behavior (see figure 1). This instrument was completed by students to evaluate the didactical performance of their skills teachers. The skills teachers were informed before the session and orally asked for consent orally. When a teacher disagreed to be evaluated and to participate in the study, the instruments were not distributed. The teacher may also withdraw from the study and the data would not be included.

The research findings that guided the development of the instrument were also used to develop the interview schedule for the focus group discussion.

SUBJECTS

255 of the (280) first year regular class students participated in this study, yielding a response of 91%. Students were asked to evaluate their teacher's didactical performance at the end of the session using our preliminary instrument. The students from the international class were not approached because of their different characteristics from the regular class students in terms of language and their origin countries and possibly different culture. Those conditions were assumed to potentially impact the study and consequently confound the results.

Next we organized Focus Group Discussions (FGD) to explore students' perception toward teacher's didactical performance. Thirty two students (at least one student per group) were involved in FGD. They recruited voluntarily. They did not get any compensation except the snack while discussion.

Students involved in FGD were divided into two groups. Group discussions were moderated by the researcher as a chair with the help of an assistant as the scribe. The topics of the FGD resulted from the same studies that guided the development of the questionnaire. The focus group discussions were

conducted along an interview scheme, which helped the moderator to address the topics in an 'open-to-closed' fashion. The following topics were discussed in the FGD: didactic skills, interpersonal & communication skills and condition/strategy of skills training. The focus of FGD was the descriptions of

clinical Skills lab teacher's (that is: clinical teachers/specialists' and Skills lab teachers'/general practitioners') didactical performance. Special attention was given to possible differences in their didactical performance (see appendix).

Figure 1. INSTRUMENT FOR EVALUATING CLINICAL SKILLSLAB TEACHER'S DIDACTICAL PERFORMANCE

Name of teacher : Date: Grup:.....
 Write the check sign (v) in: 1 = very poor, 2: poor, 3: middle, 4: good, 5: very good, NA: not applicable

No	ASPECTS	1	2	3	4	5	NA
A DIDACTIC SKILLS: teacher perform.....							
1	Discuss students' preparatory reading in constructive, non - judgmental manner						
2	Be aware of students' level of knowledge and understanding						
3	Demonstrate skills step by step						
4	Answer the student's questions						
5	Embed skills training in underlying basic science knowledge						
6	Help students understand and correct the mistakes						
7	Stimulate collaboration						
8	Explicitly inviting students to ask questions						
9	Strike a good balance between questioning and teaching						
10	Give constructive positive feedback and explain negative feedback						
11	Stimulate contextual learning by linking physical examination skills to real clinical situation						
12	Explain the implication of possible outcomes of physical examination						
13	Ask for feedback on teaching and training sessions						
B INTERPERSONAL & COMMUNICATION SKILLS: teacher perform.....							
14	Treat students as equals						
15	Respect students' personal integrity						
16	Use male rather than female models						
17	Invite students to volunteer rather than select them						
18	Show enthusiasm						
19	Sense of humor						
C CONDITIONS/STRATEGY OF SKILLS TRAINING: teacher perform.....							
20	Two-way integration of skills training with concurrent curricular components (tutorial, lecture, practical session)						
21	Structured training sessions						
22	Delivery of a summary at the end of training session						
23	Sufficient knowledge of the subject						
24	Proper preparation for the training session						
25	Guard intimacy and integrity by peer physical examination						
26	Good time management of session						

Please write down the other suggestions regarding skills teacher didactical performance

.....

INSTRUMENT

The literature (Duvivier et al., 2009; Martens et al., 2009) guided the development of both the instrument and the interview schedule for the FGDs. The following topics were stated: didactic skills, interpersonal & communication skills and condition/strategy of skills training. Each of them consists of several items in detail.

ANALYSIS

We quantitatively and qualitatively compared clinical teachers' (specialist) and Skillslab teachers' (general practitioner) didactical performances, expecting similarities to support the validity of our preliminary instrument.

FGDs were conducted until full data saturation occurred. FGDs were audio-taped and literally transcribed for coding process. The transcripts were analyzed qualitatively by two coders. Coders were the researcher and one expert from Skills lab. They worked

independently conducting open coding using ATLAS ti (version 6) software. Frequent meetings were conducted until the coders reached agreement (Fraenkel & Wallen, 2009).

To reach reliability of the instrument expressed as Cronbach's alpha, we did reliability test using SPSS (version 17.0) software (Field, 2009). A p-value of 0.05 was considered the threshold value for significance.

RESULTS

255 First year regular class students participated in this study (response rate = 91%). Those students are divided in 28 small groups. Each group assessed one skill teacher, either a specialist or a general practitioner. 10 General practitioners (age mean = 27 years old, teaching experience < 5 years, mean = 2 years, SD = 1.1547) and 6 specialists (age mean = 40 years old, teaching experience > 5 years, mean = 16.5 years, SD = 5.2440) were evaluated by students. See figure.

Figure 2. Descriptive Statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
GP	10	1.00	4.00	2.0000	1.1547
SP	6	10.00	25.00	16.5000	5.2440
Valid N (listwise)	6				

Next a further 32 students were conducted FGDs. All information in the FGD was saturated since there no more new information emerged.

VALIDITY

General didactical performance

A significant difference was found between clinical teachers' (specialist) and Skillslab teachers' (general practitioner) general didactical performance ($p < 0.05$) (see figure 3).

Quantitative data showed that students give a better evaluation of the Skills lab teacher (general practitioner) (mean = 4.10) than of the clinical teacher (specialist) (mean = 3.87). This result is supported by qualitative

data from FGD, where students repeatedly indicated marked differences between them:

".....specialists have more specialized knowledge, when we ask them they will answer very well. They are able to explain better. They seldom give feedback however; they just let us practice without any feedback. For general practitioners, well...they are not so deep in teaching but then they ensure that every student is able to perform the skills very well..."

RELIABILITY

The reliability test yielded an α of 0.95). All items contributed to this value: this value is the highest compare with others if an item would be deleted. (see figure 4).

Figure 3. Independent sample test for general didactical performance

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
General	Equal variances assumed	35.615	.000	-3.255	253	.001	-.2242	6.889E-02	-.3599	-8.86E-02
	Equal variances not assumed			-2.551	78.447	.013	-.2242	8.790E-02	-.3992	-4.92E-02

Figure 4. Reliability analysis (Alpha) whole items

Item-total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item - Total Correlation	Alpha if Item Deleted
Q1	102.0968	156.2308	.6291	.9465
Q2	102.0129	155.5323	.6267	.9465
Q3	101.6839	156.6462	.5338	.9474
Q4	101.8516	153.4389	.6484	.9462
Q5	102.0065	154.8896	.6628	.9461
Q6	101.7484	155.0077	.6119	.9466
Q7	102.0968	152.5295	.6889	.9457
Q8	102.1290	153.1521	.6432	.9463
Q9	102.0645	154.2296	.6889	.9458
Q10	102.1355	151.6244	.6903	.9457
Q11	102.1097	153.4230	.6722	.9459
Q12	102.0645	153.6452	.6847	.9458
Q13	102.2710	153.7573	.5372	.9477
Q14	101.9677	154.0054	.6664	.9460
Q15	102.0258	153.3630	.6876	.9458
Q16	102.3871	154.9531	.5184	.9478
Q17	102.1935	152.4818	.5966	.9470
Q18	102.1032	152.2620	.6617	.9460
Q19	102.2065	153.5285	.6121	.9466
Q20	102.1742	152.2747	.7027	.9456
Q21	101.9871	155.9868	.6038	.9467
Q22	102.1677	153.5951	.6670	.9460
Q23	101.9226	155.0199	.6420	.9463
Q24	101.9419	156.5226	.5264	.9475
Q25	102.0452	153.2252	.6974	.9457
Q26	101.9935	157.3311	.4709	.9481

Reliability Coefficients	
N of Cases =	155.0
N of Items =	26
Alpha =	.9484

FURTHER ANALYSIS OF VALIDITY AND RELIABILITY

(general practitioner) specific didactical skills ($p < 0.05$) (see figure 5).

VALIDITY

Didactic Skills

Similarly, a significant difference was found between clinical teachers' (specialist) and Skillslab teachers'

Figure 5. Independent sample test sub topic A; didactic skills

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Sub topic A	Equal variances assumed	25.714	.000	-3.227	253	.001	-.2341	7.254E-02	-.3770	-9.13E-02
	Equal variances not assumed			-2.593	80.465	.011	-.2341	9.028E-02	-.4138	-5.45E-02

Quantitative data showed that students judged Skillslab teachers (general practitioner) (mean = 4.14) higher than clinical teacher (specialist) (mean = 3.90). Qualitative data supported this finding. Clinical teachers (specialist) tend to irresponsible toward student understanding.

"...specialists just explain the topic but don't know whether or not students understand what they said.."

Another student supports this opinion:

"This happened in the end of session.....'Well, just do it, practice by your selves'.... Then they (specialist) leave us without any feedback"

Students prefer being taught by Skillslab teacher (general practitioner) in this way:

"GPs teach us until they are really sure we understand and able to practice the skills. If there was a student don't understand the skill, they repeat to explain it"

While teaching the topic, clinical teachers (specialist) tend not to notice the student's level of knowledge and preparation before session, they directly teach student. They also seldom teach the skill step by step. They directly focus on teaching the core and most important aspects of the topic.

"Specialist do not notice the students' preparation... may be it is because they often come late, they teach

in a hurry, not step by step, but directly teach the topic as they usually conduct it during their encounters with their patients every day"

This condition is clearly evaluated differently for Skillslab teachers (general practitioner)

"I prefer being taught by GP because they teach as the manual book said, they teach step by step as checklist in the manual book. This will help us to achieve the same standard ..."

About the amount of practice time and feedback, again students prefer GPs' didactical performance above the specialists':

".....With the specialist, we find less amount of time to practice the skill. Often the specialist uses too much use time to teach, and leave less opportunity for students to practice the skills.."

"....specialists seldom give feedback about our skill, GPs notice our skill and ensure each of us already practiced the skill.."

However students prefer specialists since they are considered to be able to explain the topic more clearly. They can easier connect the topic to the real setting.

"Specialists encounter patients every day. They have many experiences with patient cases. They teach the skill and bring our imagination towards real situation; really it can make us easier to understand the topic"

Interpersonal & communication skills

There is no significant difference between clinical teachers' (specialist) and Skillslab teachers' (general

practitioner) interpersonal and communication skills ($p > 0.05$) (see figure 6).

Figure 6. Independent sample test sub topic B; Interpersonal and communication skill

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Sub topic B	Equal variances assumed	26.706	.000	-1.712	253	.088	-.1450	8.467E-02	-.3117	2.180E-02
	Equal variances not assumed			-1.380	80.713	.172	-.1450	.1051	-.3540	6.411E-02

Quantitative data showed that students better evaluate Skills lab teacher (general practitioner) (mean = 4.03) than clinical teacher (specialist) (mean = 3.88). Qualitative data support this finding:

Students stated that both specialists and GPs invite students to be a volunteer during skills training session.

"All teachers (specialists and GPs) always invite students to volunteer rather than select them and motivate students to practice the skill"

Enthusiasm and sense of humor is reported to depend on the individual teacher's character. Both specialists and GPs show good enthusiasm in teaching and sense of humor.

"Mostly GP show enthusiasm better than specialist but it depends on the person..."

"Mostly specialists do not show sense of humor, but there is a specialist show sense of humor very well"

There is an interesting opinion among students about the item: 'Use male rather than female models'. Several students, especially male students, feel it is unfair if the

model used is male rather than female. They want both male and female to be a model with special consideration to the female because of sensitive examination.

"...it is better if there was female model, because in the future we will encounter not only male patient but also female one"

"...from senior experience, he confused and nervous when he encounter female simulated patient in OSCE, because he never exercised with female simulated patient before (during skills training)..."

"...it is nice to be female (student)...they can practice with both male and female model...whereas male (student) only can practice to male model..."

"...may be better if female also be a model, but not for sensitive examination"

Condition/strategy of skills training

There is a significant difference between specialists and general practitioner about condition/strategy of skills training ($p < 0.05$) (see figure 7).

Figure 7. Independent sample test sub topic C; condition/strategy of skills training

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Sub topic C	Equal variances assumed	18.665	.000	-3.467	252	.001	-.2606	7.516E-02	-.4086	-.1125
	Equal variances not assumed			-2.859	82.770	.005	-.2606	9.115E-02	-.4119	-7.93E-02

Quantitative data showed that students give better evaluation to Skills lab teacher (general practitioner) (mean = 4.09) rather than clinical teacher (specialist) (mean = 3.83) regarding condition ...etc.... Qualitative data support this finding:

Students stated that GPs tend to embed Skills lab training with the basic knowledge, whereas specialists often connect Skills lab training with the real situation.

"GPs is good in basic science knowledge and they can connect it to the skills training session, whereas specialists often connect the training with their daily experience"

About delivering a summary at the end of session student state that:

"...both (specialist and GP) is seldom doing this, if so GPs is more often (delivery summary)...."

Toward the preparation of teaching and teachers' knowledge, student judged specialists to be better than GPs.

"We are taught (by specialist) in detail, they can explain better and can answer any question from students"

"Because of the higher knowledge and understanding, they can answer our question more clearly"

"Specialists are more creative in conditioning of teaching process"

"I think specialists are more excellent, because GP still not have enough confident in teaching"

About time management, mostly students criticize the specialists because most of them come late in skills session.

"...Sometimes specialists come very late until 1 hour...."

"...because of their busyness (service to patient) they come late..."

"...well.. good time management will be reached if they (specialists) come on time. They often late and even very late. How come will be reached the effective learning if the session started very late..."

RELIABILITY

Specifically reliability test per point A (didactic skill), B (interpersonal and communication) and C (condition/strategy of skills training) are ($\alpha = 0.9809$) (figure 8), ($\alpha = 0.8283$)(figure 9) and ($\alpha = 0.8269$) (figure 10) respectively.

Figure 8. Reliability analysis (Alpha) point A; didactic skill

Item-total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item - Total Correlation	Alpha if Item Deleted
Q1	49.3442	38.4698	.5879	.9037
Q2	49.2326	37.9550	.6254	.9022
Q3	48.9442	38.4922	.5424	.9054
Q4	49.0884	37.6791	.5866	.9037
Q5	49.2465	37.9436	.6433	.9016
Q6	48.9907	37.4765	.6622	.9006
Q7	49.3721	36.4964	.7040	.8986
Q8	49.3674	37.3457	.5965	.9034
Q9	49.2884	37.5239	.6782	.9001
Q10	49.3721	36.4964	.6553	.9008
Q11	49.3488	36.7890	.6670	.9003
Q12	49.3581	36.8478	.6930	.8992
Q13	49.5674	36.9008	.5453	.9068
Reliability Coefficients				
N of Cases =	215.0		N of Items = 13	
Alpha =	.9089			

Figure 9. Reliability analysis (Alpha) point B; interpersonal and communication

Item-total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
Q14	19.7753	9.6667	.5541	.8096
Q15	19.8090	9.1272	.6577	.7894
Q16	20.1798	9.1539	.5734	.8058
Q17	19.9326	8.5830	.6092	.7996
Q18	19.9045	8.7535	.6553	.7883
Q19	19.9775	9.4458	.5493	.8104
Reliability Coefficients				
N of Cases =	178.0		N of Items =	6
Alpha =	.8283			

Figure 10. Reliability analysis (Alpha) point C; condition/strategy of skills training

Item-total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item - Total Correlation	Alpha if Item Deleted
Q20	24.3859	9.5130	.6204	.7953
Q21	24.1494	10.1609	.6157	.7974
Q22	24.3693	9.9006	.5787	.8025
Q23	24.1079	10.1800	.5998	.7996
Q24	24.1618	10.1779	.5642	.8048
Q25	24.2739	9.7414	.6657	.7883
Q26	24.2199	10.6639	.3857	.8352
Reliability Coefficients				
N of Cases =	241.0		N of Items =	7
Alpha =	.8269			

DISCUSSION

This study is restricted to the development of the instrument. The result of the teacher performance is not highlighted. We conducted validity and reliability

tests of our preliminary instrument based on previous studies (Duvivier et al., 2009; Martens et al., 2009) for evaluating clinical Skill laboratory teacher's didactical performance.

Validity

Validity is appropriateness, correctness and meaningfulness of a tool or instrument for measure a thing (Fraenkel & Wallen, 2009). In this study, the preliminary instrument really does measure clinical skills teachers' didactical performance.

This study used a mixed method design in which both quantitative and qualitative method are used. It is used focus group discussion to validating the data from formulated questionnaire (Kitzinger, 1995)

According to the result of study, comparison data from questionnaire which focus on differential clinical skill teachers' didactical performance between general practitioner and specialists' with focus group discussion finding showed that there are similarities in general.

Subsets of data (didactic skills interpersonal and communication and condition/strategy of skill training), also showed similarities. Both quantitative and qualitative analyses addressed any difference in didactical performance between general practitioner and specialists. Although 'interpersonal and communication' showed no statistical difference between didactical performance of general practitioner and specialists, students give higher evaluation to the general practitioner and it is similar to qualitative result.

These differences can be explained using a scheme of skill acquisition ("Four stages of competence", n.d., para. 4) (see figure 11)

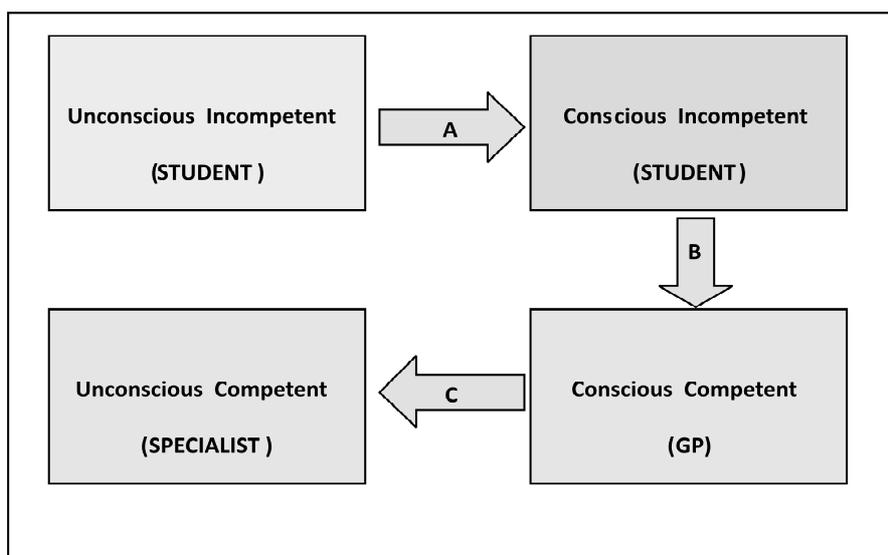


Figure 11. Skills Acquisition

According to the figure 11, specialist teachers (as experienced teachers with age mean = 40 years old, teaching experience > 5 years) are in the final stage of skill acquisition, the so-called 'unconscious competent' stage, whereas general practitioners who are on average fresh graduate doctors (age mean = 27 years old, teaching experience < 5 years) are in the preceding stage ('conscious competent'). The students are in stages 'unconscious incompetent' and 'conscious incompetent'.

Therefore students mostly give higher mark to GP than specialist. Figure 11 showed that the distance between GP and students is closer than the distance between specialist and students. It can explain that communication and interpersonal relationship between GP and students are better than specialist and students.

GP as teacher (teaching experience < 5 years) are preferred by students since they teach step by step as manual book. Student will not confuse to study the skill guided by GP. It is different if students were taught by specialist. Specialists often teach the student not as

manual book but as real clinic experience. Specialists' teaching experiences are more than 5 years in average. That's why students agree that specialist has much experience about it

Reliability

Reliability is consistency. In this study reliability test is showed as Chronbach Alpha ($\alpha = 0.95$). It was high result of reliability since literature said that minimally acceptable reliability is ($\alpha = 0.7$) (Fraenkel & Wallen, 2009).

The reliability of qualitative data was shown by both saturation of FGDs data and the application of two coders. Data saturation was reached very quickly; apparently the issue was very recognizable for all participants. The use of multiple coders will increase the reliability of qualitative data (Mays & Pope, 2000).

CONCLUSION

The formulated questionnaire was valid and reliable. It can be concluded that characteristics of a proper instrument for evaluating clinical skills teachers' didactical performance encompass didactic skill, interpersonal & communication skills and condition/strategy of skills training

LIMITATION

Limitation of this study is: the students involved in FGD (32 students) are also completed the questionnaire. They may have remembered what they answered to the questionnaire and repeated that in the FGDs.

FURTHER RESEARCH

Evaluation of clinical skill lab teachers' didactical performance towards other skills.

IMPLICATION FOR EDUCATIONAL PRACTICE

The formulated instrument can be applied for evaluating clinical skillslab teachers. The result of evaluation could be used to feedback teachers about their didactical performance. Further the result could be useful for faculty development program.

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APPENDIXES

Focus Group Discussion Schedule

1. In general, are there any different about didactic performance between skills lab teacher and clinical teacher?
2. Are there any different about "didactic skill" between skills lab teacher and clinical teacher?
3. Are there any different about "Interpersonal & communication skills" between skills lab teacher and clinical teacher?
4. Are there any different about "Condition/Strategy of skills training" between skills lab teacher and clinical teacher?
5. Are there any different about..... (per item).....between skills lab teacher and clinical teacher?
6. Are there any suggestions regarding the questioner? Any suggestions for add the item?