Instrument to evaluate teaching performance in class management (IEDDCC)

Instrumento para evaluar el desempeño docente en la conducción de clase (IEDDCC)

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Abstract

The objective of this work was to expose and validate the psychometric properties of a suitable instrument to evaluate teaching performance in classroom management (IEDDCC); the study was considered instrumental and a purposive sample of 108 academic figures in basic education was used for data collection. The results of the measurement of the psychometric properties of the instrument indicated a Cronbach's alpha reliability of 0.964 and, in the construct validity carried out through the "total domain" correlation test, a value of Spearman's Rho coefficient of 0.978 was obtained, values considered to be quite acceptable. With respect to the confirmatory validity test carried out through the linear regression test, information was also obtained that supports these results; among them, the fact that the independent variable explains 95.8% of the behavior of the dependent variable was highlighted. Finally, in measuring the level of teaching performance, the 108 teachers evaluated indicated that the IEDDCC objectively measures the construct for which it was designed.

Psychometric, Reliability, Validity, Measurement

Resumen

El objetivo de este trabajo consistió en exponer y validar las propiedades psicométricas de un Instrumento adecuado para evaluar el desempeño docente en la conducción de clase (IEDDCC); el estudio se consideró de tipo instrumental y para la recolección de datos se utilizó una muestra de tipo intencional de 108 figuras académicas de educación básica. El resultado en la medida de las propiedades psicométricas del Instrumento indicaron una fiabilidad del alfa de Cronbach de 0.964 y, en la validez de constructo efectuada a través de la prueba de correlación "dominio total", se obtuvo un valor del coeficiente Rho de Spearman de 0.978, valores considerados como bastante aceptables. Respecto a la prueba de validez confirmatoria que se realizó a través de la prueba de regresión lineal, también se obtuvo información que avala estos resultados; entre ellos se destacó el hecho de que la variable independiente explica en un 95.8% el comportamiento de la variable dependiente. Por último, en la medida del nivel de desempeño docente, los 108 profesores evaluados indicaron que el IEDDCC mide con objetividad el constructo para el que fue diseñado.

Psicometría, Fiabilidad, Validez, Medición

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Introduction

The instrument for evaluating teacher performance in classroom management was derived from the Instrument for measuring teacher learning as a product of the performance evaluation process (IEAD) (Ochoa and Cháidez, 2020), specifically from the dimension "Classroom management". The construction of the IEAD was based on the operationalization of the dimensions of two instruments:

- The Classroom Observation Instrument a) (IOC), which was an adaptation of the Hester Observation (THOR), designed to measure teacher performance in the dimensions "classroom management", "teaching management" and "learning assessment", "[...] is based on the study by Tsang (2004), the original version of which has already been evaluated and validated by Good (2006)", (Contreras, et al., 2013, p. 93). The IOC was adopted to the Chilean educational context and was constructed with the objective of being able to determine the level of teacher performance practiced in that context.
- b) The instrument Perfiles Parámetros e Indicadores (PPI), proposed by the Secretaría de Educación Pública, (SEP, 2018a).

The structure of the IEAD was made up of 43 items measurable through a Likert scale, distributed as follows: 16 items in dimension 1, "classroom organization" (the name of this dimension was changed from "classroom management" for reasons favorable to the Mexican context); 17 items in dimension 2, "classroom management" and; 10 items in dimension 3, "evaluation of learning".

The IEAD was constructed to measure teacher learning as a product of the performance evaluation process at the three levels of basic education and, in order to obtain the appropriate information, the instrument was applied to 108 academic figures who were in charge of evaluating one of their teachers; among these figures were Sector Heads, Supervisors, Principals, Assistant Principals and Technical Pedagogical Advisors;

All of them knowledgeable about the work that their teachers must perform and were performing at the time of the evaluation. The response to the items of the dimensions of the IEAD were rated with a Likert scale of four levels, adequate to measure the teacher's performance; that is, his or her intervention in the classroom in promoting student learning.

Specifically, the information collected with the items of the dimension "classroom management" measures the teaching performance related to the way of managing the class, and therefore, facilitating the learning of their students; for this reason, this dimension was constituted as an Instrument to evaluate the teaching performance in management (IEDDCC), (see annex number 1). The Likert scale used to evaluate teaching performance included "fair", "good", "very good" and "excellent" performance levels.

Problem statement

Based on the exposed background, this research work consisted in exposing and validating the psychometric properties of the IEDDCC; the first foundation that validated the idea of proposing it as an independent instrument to the IEAD, was the observation described by De la fuente (2019):

"If there are 'n' factors, it is interpreted that the original instrument can be decomposed into 'n' instruments (each composed of all items), although in each instrument the items have a different 'specific weight' depending on their relationship to the factor: If we find, for example, three factors, this means that we can decompose the original instrument into three instruments; each one is composed of all the items, but in each instrument the items have a different specific weight according to their relationship with each factor (p. 3).

In the measurement of the psychometric properties of the IEAD, a Cronbach's alpha reliability of 0.98 was obtained, while the construct validity was developed through the total domain scale correlation test, confirming the validity of the instrument by means of the multiple linear regression test. One of the relevant results that gave rise to the study in this paper was the equation of the regression model obtained in the Student's t-test.

In order to determine the construct validity of the IEDDCC, it was necessary to present the results of the IEAD construct validity test; specifically, the confirmatory validity obtained with the multiple regression test, highlighting the determination of the model equation through the Student's t-test and expressed in algebraic terms as follows:

$$y = 0.087 + 1.023x_1 + 1.045x_2 + 0.983x_3$$

The information implicit in the equation of the regression model allowed inferring the existence of linear independence between the dimensions of the IEAD, and therefore, the possibility of treating them as independent instruments at the same time; in these circumstances, the objective of this research work was to expose and validate the psychometric properties of reliability and dimension 2. "classroom validity management": and to be considered as a valid instrument to evaluate teacher performance in classroom development.

A complementary work that contributed to the achievement of the objective of this research work was the presentation of the results of the evaluation of the teaching performance in classroom management shown by the 108 teachers evaluated.

Objective

To present and validate the psychometric properties of the Instrument for Evaluating Teacher Performance in Classroom Conduct (IEDDCC).

Justification

The research work was carried out to create the IEDDCC, an instrument that emerged from the second dimension of the IEAD. The construction of the IEDDCC is considered important because its independence makes it possible to evaluate the performance of teachers in the development of their educational practice in the classroom or classroom management, a fundamental aspect in the educational process that is directly related to the facilitation of learning promoted by the teacher.

On the other hand, the results of the application of the IEDDCC can benefit all those academic figures who wish to know the performance of teachers in relation to their way of conducting the teaching-learning process with their students, information that can be fed back to the teachers subject to evaluation and undertake joint actions that contribute to improve performance in this dimension of learning.

Theoretical Reference

Teaching practice

The teacher's educational practice in the classroom has a fundamental effect on the generation of student learning; for this reason, the teacher must be committed to the development of strategies, resources and methodologies that make it possible for the contents of a curriculum or course to contribute to the achievement of the proposed objectives, that are meaningful and applicable to their environment.

Research on teaching effectiveness has provided a wealth of information on how classes are developed and how teachers work to ensure that their students learn above and beyond what would be expected in their context (Murillo, Hernández and Martínez, 2016, p. 56).

One of the fundamental aspects in the educational process in the classroom is communication, since it is the way to put a message to the consideration of the students, the exchange of meanings, the presentation of arguments, the promotion of debate for the search of consensus and the clarification of misunderstandings, among others. In this context, the panorama of content is broadened and students gradually re-signify their previous conceptualizations; in this way and under these conditions, language serves to represent and communicate meanings and is constituted as a didactic resource and a teaching and learning strategy.

The most recent international and national studies on educational communication define it as a process that is closely related to the educational work of the teacher, involving different forms of interaction, exchange of information and joint elaboration of meanings participants as among essential characteristic of the teaching process (Sardiñas, Domínguez and Reynoso, 2020, p. 20).

In the educational action, the communicative relationship between teacher and student is essential and it must be reciprocal and unidirectional; in this regard, with the development of technologies and remote education, there has been a loss of face-to-face communication between educational agents; however, regardless of the classroom environment, clear communication can lead to the facilitation of learning for students.

Teachers, who are responsible for providing educational services in each of their classrooms, have found it necessary to assimilate digital competencies in order to meet the learning needs of their students (Alcántara, 2022, p. 26).

The educational process

In the educational activity within the classroom, teachers approach their teaching-learning processes based on some reference theory that supports the development of some educational model that is applied with the purpose of facilitating the learning of their students, so that the appropriation of knowledge allows them to develop academic activities, solve problems that arise and evaluate their results; "(...) this process is pedagogically based, in accordance with modern currents, on the purpose that the person learns and achieves the expected learning outcomes" (Serrano, 2017).

In this educational process, external support within the classroom also has a strong influence, support that consists of strengthening the teacher's pedagogical management and that can lead to better results as a result of the socialization of academic content:

One of the figures that provides this service is the technical-pedagogical support who, together with the management function. must act as an advisor of the educational practice based on the follow-up of actions of the Improvement Route, that is, as external support that identifies the strengths and areas of opportunity in the schools. Therefore, these figures should be oriented to develop classroom observation abilities, with technical rigor and ethical professionalism, as well as supervisory skills with a pedagogical guideline and specific formative feedback, so that from them they derive recommendations for classroom and school practice (DOF, 2017). With the purpose of evaluating the results of the educational activities developed in class, some studies have highlighted the importance of the feedback action of the knowledge approached, since this is a fundamental part of the teaching-learning process generated in class, a space in which aspects of self-evaluation and co-evaluation converge in a natural way in favor of learning; in this regard, the literature review indicates a greater production in the study of students' perceptions in feedback activities, this can be explained due to the sustainable approach that suggests the idea of the student as an autonomous learner, hence the considerations linked to factors such motivation. as emotionality and interest. (Quezada Salinas, 2021, p. 234).

Method

Research design

According to the objective and characteristics of this research work, the study was considered instrumental in nature since "(...) all studies aimed at the development of tests and devices, including both the design (or adaptation) and the study of their psychometric properties, are considered to belong to this category" (Montero and León, 2007, p. 855).

Participants

The study sample used to validate the IEAD and consequently the IEDDCC, was 108 academic figures who were selected as evaluating participants, among them: Sector Heads, Supervisors, Directors, Assistant Directors and Technical Pedagogical Advisors; all of them assigned to the SEP.

Even though the number of elements included in the sample was quite acceptable, in addition to providing a high degree of homogeneity, the economic cost geographical dispersion of the participants was an obstacle to access more of them; under these conditions, the selection of the sample was "intentional"; this procedure is conceptualized by Otzen and Manterola (2017), as follows, "It allows selecting characteristic cases from a population by limiting the sample only to these cases. It is used in scenarios where the population is highly variable and consequently the sample is very small" (p. 230).

Information analysis tool

The classification and organization of the data and the psychometric tests of the IEDDCC were carried out with the use of the Excel spreadsheet and the SPSS statistical program version 22, respectively.

Operational variable scores

The scores of the operational variables used in the study can be found in the Appendices section (see appendix 2), and were coded for the SPSS program as follows:

- a) DESDOCEN (teaching performance), contains the total score for each of the 43 IEAD items.
- b) D2COCLAS (dimension 2, classroom management) contains the total score of each of the 17 items of dimension 2.

Based on the D2COCLAS score, the range of scores for each level of the Likert scale was determined; this classification was carried out by means of an arithmetic operation that allowed locating the level of teaching performance in classroom management; the score that specifies the level at which each evaluated teacher was placed was coded with the name DEDOCOCL (teaching performance in classroom management) and can be found in the Appendices section (see appendix 3).

Reliability test

The reliability of an instrument is the reproducibility of results obtained by a measurement procedure; it can be interpreted as the degree of stability achieved in the results when a measurement is repeated under similar conditions.

Reliability or reliability refers to the consistency or stability of a measurement. A technical definition of reliability that helps to solve both theoretical and practical problems is one that starts from the investigation of how much measurement error exists in a measurement instrument, considering both systematic variance and variance by chance (Kerlinger and Lee, 2002, cited by Quero, 2010, p. 248).

To measure the reliability of the IEDDCC, the response given to its 17 items by the 108 participants was used; the test used was Cronbach's alpha coefficient, appropriate to the Likert scale of the questionnaire.

IEDDCC construct validity

The construct validity test of the IEDDCC was also performed based on the "total domain" correlation tests of the scale; this test is validated by Morey (2011) who states that "The evaluation of construct validity is multiple, and includes: "(...) correlational studies with a wide variety of relevant measures" (p. 10).

For the particular case of the IEDDCC, the correlational test was performed between the DESDOCEN score or "total mastery" of the scale and the D2COCLAS score; in the application of the test, Spearman's rho statistic was used, which is appropriate for variables whose scores do not obey a parametric distribution, as is the case of the variables treated.

To determine the existence of correlation between interval or ratio type variables with a nonparametric distribution, the following observation was considered: "The term nonparametric statistics refers to statistical methods that do not require the specification of an assumption about the distribution from which the sample data come to make inferences about the population." [Cáceres & Hernández, 2006, cited by Mondragón, 2014, p. 99].

The correlation test between the variables indicated, was determined based on the following approach:

Hypothesis contrast:

 H_o : There is no correlation between X and Y H_1 : There is correlation between X y Y

The decision rule:

if "p" value $\leq \alpha$, reject H_0

Validity test confirmation

In order to complement the construct validity of the IEDDCC, a simple linear regression test was performed using the score of the dependent variable DESDOCEN and the score of the independent variable D2COCLAS.

The simple linear regression test consists of calculating the equation corresponding to the line that best describes the relation between the response or dependent variable and the explanatory or independent variable.

Regression analysis is a statistical technique used to investigate and model the relationship between an explanatory variable (X) and a response variable (Y). In order to perform such an investigation, a model must be postulated that is made up of a deterministic component and a random component. The first is a function between the variables; the second considers the linear function $y=\beta_0+\beta_1 X_1$, which represents the equation of the line in the plane (Lavalle, Micheli and Rubio, 2006, sp).

To evaluate the regression model of DESDOCEN and D2COCLAS scores, the results of three tests were analyzed:

a) ANOVA hypothesis test, the purpose is to verify if the independent variable contributes information in the explanation of the dependent variable; the regression model approach and the hypothesis test is as follows:

$$Y = a + bx + e$$

$$H_O = \beta_O$$

$$H_i \neq \beta_0$$

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Hypothesis contrast:

 H_0 : There is no association between X and Y

 H_i : There is an association between X y Y

The decision rule:

if "p" value $\leq \alpha$, reject H_0

b) Student's t-test, useful to determine the coefficients of the regression model and the significance of the information provided by the independent variable (IV); the regression model approach and the hypothesis test are as follows:

$$H_0 = 0$$

$$H_i \neq 0$$

Hypothesis contrast:

 H_0 : The independent variable does not provide significant information

 H_i : The independent variable provides significant information

The decision rule:

if "p" value $\leq \alpha$, reject H_o

c) The third test consisted of determining the coefficient of determination R², a statistic that reflects the extent to which the independent variable explains the behavior of the dependent variable.

Teaching performance in class management

An extra contribution to the validation of the IEDDCC was the result of the evaluation of the teaching performance in class conduction that the 108 evaluated teachers evidenced; this result was obtained through a Likert scale and its score was coded for the SPSS program as DEDOCOCL. The use of this measurement scale was similar to the one used by Martínez and Juárez (2019) in the validation process of an instrument, regarding the levels used they expressed the following: "A Likert scale from one to four (where one corresponds to the evaluation with the lowest score) was used to carry out the quantitative evaluation". (p. 45)

The levels of the Likert scale are described in Table 2, which shows four levels of teaching performance in classroom management that teachers can observe in their educational practice.

Leve	Level of performance in class management					
1	Performance "regular"					
2	Performance "good"					
3	Performance "very good"					
4	Performance "excellent"					

Table 1 Scale to measure teaching performance in classroom management *Source. Own Elaboration*

Results

Reliability test

Table 2 shows the result of the reliability test that was carried out with the 17 items of the IEDDCC, in which it can be seen that the value of the Cronbach's alpha statistic was 0.96, a number that indicates an excellent reliability of the instrument; this assessment is confirmed by the result obtained by Zambrano et al. (2015), who indicated that: "According to Cronbach's alpha coefficient, the internal consistency of the test is adequate since a value of 0.99 is obtained" (p. 32).

Reliability statistics							
Cronbach's alpha	N of elements						
.964	17						

Table 2 IEDDCC Reliability *Source. Own Elaboration*

Construct validity

Total domain correlation result

Table 3 shows the result of the correlation test between the variables DESDOCEN and D2COCLAS; the value of the Rho coefficient is 0.978 and indicates that there is a very good correlation between the pair of variables.

	Correlations							
		DES-	D2CO-					
			DOCEN	CLAS				
Rho	DES	Coef	1.000	.978**				
Sper	DOCEN	correl						
		N	108	108				
	D2CO	Coef	.978**	1.000				
	CLAS	correl						
		N	108	108				
**. Th	**. The correlation is significant at the 0.01 level							

Table 3 Correlational test result *Source Own Elaboration*

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Confirmatory validity result

Table 4 shows the result of the ANOVA test and according to the hypothesis contrast, the existence of association between the pair of variables was confirmed, indicating that the information of the independent variable is significant in the regression model.

	ANOVA ^a						
		Sum of					
M	Iodel	squares	gl	F	Sig.		
1	Regression	102191.3	1	2426.1	.000b		
	Residue	4464.7	106				
	Total	106656.1	107				
a. Dependent variable: DESDOCEN							
b.	Predictors: (Cor	nstant), D2CO	CLAS	5			

Table 4 ANOVA test result *Source. Own Elaboration*

Table 5 shows the result of the Student's t-test, according to the hypothesis contrast, it was confirmed that the independent variable contributes significant information to the regression model; on the other hand, the coefficients that define the model equation were also obtained.

Model		Model		t	Sig.
		В			
1	(Constant)	3.101		1.352	.179
	D2COCLAS	2.597		49.25	.000

Table 5 Student's t-test results *Source. Own Elaboration*

Table 6 shows the result of the test of the coefficient of determination R², according to the hypothesis contrast, it was confirmed that the independent variable explains the behavior of the dependent variable in 95.8 %.

Model	R	R square adjusted	Durbin- Watson
1	.979ª	.958	1.78

Table 6 Test result R² Source. Own Elaboration

Results of the level of teaching performance

From the application of the IEDDCC, the final product was the level of teaching performance in classroom management shown by the 108 teachers evaluated.

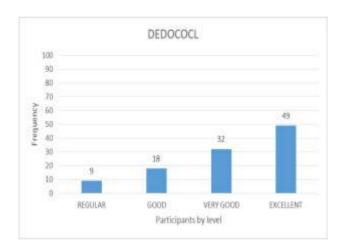
Table 7 shows the description of the result of the level of teaching performance in classroom management, with the following percentage values: a) 8.3% obtained a "regular" level of performance, b) 16.7% obtained a "good" level of performance, c) 29.6% obtained a "very good" level of performance and d) 45.4% obtained an "excellent" level of performance.

		Frec	%	%
			valid	Accum
Valid	Regular	9	8.3	8.3
	Good	18	16.7	25.0
	Very good bueno	32	29.6	54.6
	Excellent	49	45.4	100.0
	Total	108	100.0	

Table 7 Level of teaching performance in classroom management

Source. Own elaboration

Graph 1 shows the data described in table 7.



Graph 1 Level of teaching performance *Source. Own Elaboration*

Conclusions

The idea of setting the objective of validating the IEDDCC was based on the equation that resulted from the confirmatory validity study of the IEAD, the product of the multiple linear regression test to which it was subjected; this equation already indicated the existence of association between variables, but according to the value of the coefficients of the independent variables, it also indicated their linear independence. This observation was evident in contrast between the psychometric properties of reliability and validity of both instruments, the latter expressed in the correlation test; the result of the comparison was as follows:

- a) In the Cronbach's alpha reliability test; the result for the IEAD was 0.984 and for the IEDDCC was 0.964; the latter value registered a decrease in the alpha index of 2%, determining the reliability of the IEDDCC as "excellent".
- b) Construct validity was performed with the "total domain" correlation test using Spearman's Rho coefficient; the result between both variables indicated the existence of an "excellent" level of correlation.
- c) c) The confirmatory validity test was performed by simple regression, and indicated three important results: 1) the existence of an association between variables; 2) the significance of the information between variables and, 3) that the independent variable explains the behavior of the dependent variable by 95.85%, a quite acceptable value.

Based on the results obtained in the measurement of the psychometric properties of the IEDDCC, it was affirmed that the instrument is reliable and valid for measuring the level of teaching performance in classroom management.

On the other hand, in the analysis of the results obtained by the IEDDCC as a result of its application to the 108 academic figures that evaluated their teachers, it was observed that the results obtained are close to reality, that is to say, 25% of the teachers classified in a level of teaching performance between "regular" and "good"; a similar value of 29.6% registered a level of "very good" performance and 45.4%, equivalent to 49 of the 108 teachers evaluated, showed an "excellent" performance.

Another important characteristic of the IEDDCC is the simplicity in the structure of its items, as well as the number of its elements, an aspect that motivated the independence of the IEAD; in addition, the base indicators of the items allow the evaluation of this construct at practically any educational level.

ANNEXES

I	nstrument to evaluate teacher perforn		ice	in	
	classroom management (IEDDC)	C)			
	Teacher performance level				
	Performance "regular"				
	Performance "good"				
	Performance "very good"				
	Performance "excellent"				
No	ítem	1	2	3	4
	Does the teacher identify the				
1	characteristics of subject didactic				
	approaches in learning activities?				
	Does the teacher relate the learning				
2	contents of the subjects to the				
2	achievement of the educational				
	purposes?				
	Does the teacher relate his/her				
3	teaching intervention to the				
	corresponding expected learning?				
	Does the teacher relate his/her				
4	teaching intervention to the				
	educational needs of his/her students?				
	Does the teacher relate his/her				
5	teaching intervention to the didactic				
	approaches of the subjects?				
	Does the teacher use didactic				
6	strategies to help students develop				
	cognitive abilities?				
	Does the teacher diversify the use of				
7	didactic materials to achieve his/her				
	educational purposes?				
	Does the teacher elaborate specific				
8	didactic material for the development				
	of its contents?				
0	Does the teacher use didactic material				
9	supported by technology?				
	Does the teacher demonstrate a good				
10	attitude and generate guidelines to				
	drive the rhythm of the class?				
	Does the teacher use cooperative				
11	learning methods in working with				
	his/her students?				
10	Does the teacher use learning				
12	workshops in working with students?				,
	Does the teacher use didactic				
13	strategies to help students learn based				
	on their prior knowledge?				
	Does the teacher use didactic				
14	strategies to help students learn				
	among peers?				,
	Does the teacher use didactic				
15	strategies so that students learn with				
	the participation of all?				
	Does the teacher master the contents				
16	of the Primary Education subjects?				,
	Does the teacher propose a sequence				
17	of educational content to facilitate the				
-	learning of his/her students?				
	6	-	-		

Annex 1 Instrument IEDDCC

PART	DES-	D2CO-	PART	DES-	D2CO-
IAKI	DOCEN	CLAS	IAKI	DOCEN	CLAS
1	133	48	55	129	49
2	61	23	56	152	60
3	140	52	57	107	42
4	106	40	58	124	45
5	127	51	59	135	52
6	122	46	60	93	31
7	107	37	61	160	59
8	158	57	62	127	47
9	91	32	63	154	57
10	105	38	64	117	44
11	128	51	65	93	31
12	118	47	66	115	41
13	66	33	67	157	57
14	142	54	68	155	57
15	67	29	69	150	53
16	103	36	70	153	58
17	52	19	71	151	55
18	54	19	72	81	29
19	144	55	73	139	53
20	114	42	74	80	29
21	149	56	75	135	51
22	108	39	76	102	36
23	104	40	77	103	37
24	121	44	78	141	55
25 26	126 98	46	79 80	159	58
27	83	38	80	136 71	52 20
28	119	43	82	92	35
29	62	22	83	74	25
30	54	19	84	124	52
31	162	59	85	132	52
32	132	49	86	109	41
33	152	57	87	128	46
34	100	37	88	68	31
35	103	45	89	56	19
36	114	42	90	50	17
37	135	57	91	92	35
38	128	51	92	48	17
39	97	39	93	45	17
40	126	45	94	96	36
41	118	46	95	51	19
42	142	49	96	61	24
43	71	29	97	121	42
44	126	49	98	134	53
45	146	56	99	101	40
46	150	54	100	64	26
47	120	42	101	69	31
48	136	49	102	122	46
49	130	46	103	146	51
50	131	47	104	76	27
51	117	42	105	115	42
52	137	50	106	105	41
53	150	57	107	58	23
54	133	52	108	99	37

Annex 2 Scores DESDOCEN and D2COCLAS

PART	DEDO- COCL	PART	DEDO- COCL	PART	DEDO- COCL
1	4	37	4	73	4
2	2	38	4	74	2
3	4	39	3	75	4
4	3	40	3	76	3
5	4	41	4	77	3
6	4	42	4	78	4
7	3	43	2	79	4
8	4	44	4	80	4
9	2	45	4	81	1
10	3	46	4	82	3
11	4	47	3	83	2
12	4	48	4	84	4
13	2	49	4	85	4
14	4	50	4	86	3
15	2	51	3	87	4
16	3	52	4	88	2
17	1	53	4	89	1
18	1	54	4	90	1
19	4	55	4	91	3
20	3	56	4	92	1
21	4	57	3	93	1
22	3	58	3	94	3
23	3	59	4	95	1
24	3	60	2	96	2
25	4	61	4	97	3
26	3	62	4	98	4
27	2	63	4	99	3
28	3	64	3	100	2
29	2	65	2	101	2
30	1	66	3	102	4
31	4	67	4	103	4
32	4	68	4	104	2
33	4	69	4	105	3
34	3	70	4	106	3
35	3	71	4	107	2
36	3	72	2	108	3

Annex 3 Score DEDOCOCL

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