Comparison ODK forms - demo

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```
root = r"C:\Users\langhe\switchdrive\Institution\TIMCI\1 Project details\11 DM\3 ODK\odk_forms"
```

SPA exit interview comparisons

```
in_xlsx1 = os.path.join(root, r"06 Tanzania\2-SPA-timeflow\02-TIMCI-SPA-CGEI-ref-form\02-TIMCI-SPA-CGEI-ref-form.xlsx")
in_xlsx2 = os.path.join(root, r"05 Senegal\2-SPA-timeflow\02-TIMCI-SPA-CGEI-ref-form\02-TIMCI-SPA-CGEI-ref-form.xlsx")
f1 = form.Form(in_xlsx1,
               survey = "SPA exit interview")
f2 = form.Form(in_xlsx2,
               survey = "SPA exit interview")
```

Generic comparison

```
print(f1.compare(f2))
```

```
Form ID is identical: 02-TIMCI-SPA-cgei
Versions are different: 0.445 and 0.441
Default languages are different: Swahili (sw) and Français (fr)
```

Comparison based on variable names

Modified variable names

```
f1.addedQuestions(f2)
```

Table 1: SPA exit interview - Senegal vs. Tanzania - Added variable names

	row	name	type	label	group_id	group_lbl
0	49	i4_3	select_one YESNO	f2) Were you given a paper or record to take w...	i4	
1	63	h4_2	select_one TREATMENT	g1) Can you show me all the medicines and pres...	h4	

	row	name	type	label	group_id	group_lbl
2	112	m3_2	integer	k3) How many children under age 5 years curren...	t03	
3	116	m3_5	select_one COOKING_FUEL	k6) What type of stove do you use for cooking ...	t03	
4	117	m3_5o	text	k6.a) Please specify.	t03	

```
f1.removedQuestions(f2)
```

Modified labels for the same variable name

```
major, minor = f1.modifiedLabel(f2)
```

```
major
```

```
minor
```

Table 2: SPA exit interview - Senegal vs. Tanzania - Minor label modifications

	name	row1	label1	row2	label2
0	i4_1	26	e1) Did the provider refer the child?	42	e2) Did the provider refer the child?
1	h4_1	27	e2) Did the provider give or prescribe any med...	43	e3) Did the provider give or prescribe any med...
2	g5_1	28	e3) Did the provider tell you what illness you...	41	e1) Did the provider tell you what illness you...
3	h4_3	47	g2) Did the provider explain to you how to giv...	64	g2) Did the provider explain to you how to giv...
4	m3_1b	109	j19) Who is the head of your household?	111	k2) Who is the head of your household?
5	m3_3	110	j21) What type of toilet is the main toilet do...	113	k4 What type of toilet is the main toilet do h...
6	m3_3o	111	j21.a) Please specify.	114	k4.a) Please specify.
7	m3_4	112	j22) Is this toilet shared with another househ...	115	k5) Is this toilet shared with another household?
8	m3_6	113	j24) Where is the household's main source of d...	118	k7) Where is the household's main source of dr...
9	m3_7	114	j25) How much time does it take to the househo...	119	k8) How much time does it take to the househol...
10	m3_8a	115	j26) What type of floor do you have at home?	120	k9) What type of floor do you have at home?
11	m3_9a	116	j27) What type of roof do you have at home ?	121	k10) What type of roof do you have at home ?

Comparison based on labels

```
f1.compareSimilarLabels(f2)
```

RCT Day 0 form comparison

```
in_xlsx3 = os.path.join(root, r"06 Tanzania\1-RCT-LS\01a-TIMCI-CRF-Facility-ref-form\01a-TIMCI-CRF-Facility-ref-form.xlsx")
in_xlsx4 = os.path.join(root, r"05 Senegal\1-RCT-LS\01a-TIMCI-CRF-Facility-Senegal-form\01a-TIMCI-CRF-Facility-Senegal-form.xlsx"
f3 = form.Form(in_xlsx3,
               survey = "RCT/LS day 0 form")
f4 = form.Form(in_xlsx4,
               survey = "RCT/LS day 0 form")
```

```
## Generic comparison
```

```
print(f3.compare(f4))
```

```
Form ID is identical: 01a-TIMCI-CRF-Facility
Versions are different: 0.356 and 0.347
Default languages are different: Swahili (sw) and Français (fr)
```

Comparison based on variable names

Modified variable names

```
f3.addedQuestions(f4)
```

Table 3: Main Day 0 - Senegal vs. Tanzania - Added variable names

	row	name	type	label	group_id	group_
0	118	consent_img	image	d6) Please take a picture of the signed consent.	consent	
1	172	a4_c_6	select_one_from_file all_districts.csv	g11) Can you specify in which area you are liv...	t02b	

	row	name	type	label	group_id	group_
2	173	a4_c_7	text	g11.a) Please specify.	t02b	
3	174	location_name	calculate	Location name	t02b	
4	175	location_type	calculate	Location type	t02b	
5	176	location_rurb	calculate	Rural or urban	t02b	
6	205	cp_start	calculate	NaN	ttt05a	
7	206	cp_start_dec	calculate	NaN	ttt05a	
8	207	cp_start_disp	calculate	NaN	ttt05a	
9	218	injection	select_one YESNO_FULL	k5) Did ${child_fname} receive an injection?	t09a1	
10	219	injection_types	select_multiple INJECTION_TYPES	k6) What type of injection was it?	t09a1	
11	220	injection_typeso	text	k6.a) Please specify.	t09a1	
12	245	paracetamol_route	select_one PARACETAMOL_ROUTE	k14) Please indicate the administration route ...	t09a1	
13	246	salbutamol_route	select_one DRUG_ROUTE	k19) Please indicate the administration route ...	t09a1	
14	267	b2_3	integer	i9) What is the estimated amount of money you ...	t04a	
15	330	i2_1a	select_one REFERRAL_ADVICE	l13) What type of referral was it?	t09a2	
16	338	h2_2ayn	select_one YESNO	l17) Were treatments recorded for ${child_fnam...	t09a2	
17	340	amoxicillin_hf	select_one YESNO	Amoxicillin (Amox) OR Clamoxyl OR Bactox OR Al...	t09a2	
18	341	penig_hf	select_one YESNO	Benzylpenicillin OR Benpen	t09a2	
19	342	ceftriaxone_hf	select_one YESNO	Ceftriaxone OR Rocephin	t09a2	
20	343	ciprofloxacin_hf	select_one YESNO	Ciprofloxacin OR Ciproxin OR Cifran	t09a2	
21	344	ciprofloxacin_route_hf	select_one CIPROFLOXACIN_ROUTE	Please indicate the administration route of ci...	t09a2	
22	345	gentamicin_hf	select_one YESNO	Gentamicin OR Gentalline	t09a2	
23	346	gentamicin_route_hf	select_one GENTA_ROUTE	Please indicate the administration route of ge...	t09a2	
24	347	metronidazol_hf	select_one YESNO	Metronidazol OR Flagyl	t09a2	
25	348	metronidazol_route_hf	select_one DRUG_ROUTE	Please indicate the administration route of Me...	t09a2	
26	349	ampicillin_hf	select_one YESNO	Ampicillin OR Totapen	t09a2	
27	350	azithromycin_hf	select_one YESNO	Azithromycin OR Zithromax	t09a2	
28	351	benzathine_hf	select_one YESNO	Benzathine benzylpenicillin (benzathine penici...	t09a2	
29	352	aclav_hf	select_one YESNO	Co-amoxiclav OR Aclav OR Soclav OR Augmentin	t09a2	
30	353	cotrimoxazole_hf	select_one YESNO	Co-trimoxazole OR Septrin OR Bactrim	t09a2	
31	354	antibiotics_hf	select_multiple ANTIBIOTICS	l19) Please indicate if any of the following a...	t09a2	
32	355	antimalarials_hf	select_multiple ANTIMALARIALS	l20) Please indicate if any of the following a...	t09a2	
33	356	artesunate_route_hf	select_one ARTESUNATE_ROUTE	l20.a) Please indicate the administration rout...	t09a2	
34	357	quinine_route_hf	select_one DRUG_ROUTE	l20.b) Please indicate the administration rout...	t09a2	
35	358	h2_2a	select_multiple_from_file medicines1.csv	l21) Please select all the other drugs and tre...	t09a2	
36	359	h2_2ao	text	l21.a) Please specify.	t09a2	
37	360	paracetamol_route_hf	select_one PARACETAMOL_ROUTE	l20) Please indicate the administration route ...	t09a2	
38	361	salbutamol_route_hf	select_one DRUG_ROUTE	l25) Please indicate the administration route ...	t09a2	

	row	name	type	label	group_id	group_
39	393	f2__5	integer	o5) Haemoglobin level (in g/dL)	tt06a	

```
f3.removedQuestions(f4)
```

Table 4: Main Day 0 - Senegal vs. Tanzania - Removed variable names

	row	type	name	label::English (en)_x	group_id_x	group_lbl_x
0	13	select_one_from__file districts.csv	district1	a1) Please select the current district	hf	
1	14	select_one_from__file facilities.csv	fcode	a2) Please select the current facility	hf	
2	128	calculate	arm	Intervention	consent	
3	137	calculate	contact_start	NaN	t02b	
4	138	calculate	contact_start__dec	NaN	t02b	
...	...	...	...	...	...	...
69	425	select_one TB_STATUS	c3__3a	s4) Is the TB status recorded?	t05b	
70	427	select_one YESNO	c3__6a	s6) Are any disabilities recorded?	t05b	
71	431	select_multiple DISABILITIES	c3__6	s7) What disability is recorded?	t05b	
72	432	text	c3__6o	s7.a) Please specify	t05b	
73	435	text	varia	t1) Any other thing you would like to mention ...	t05b	

Modified labels for the same variable name

```
major, minor = f3.modifiedLabel(f4)
```

```
major
```

Table 5: Main Day 0 - Senegal vs. Tanzania - Major label modifications

	name	row1	label1	row2	label2
0	a4__c__9a	147	f8) Can you mention the name of your village l...	169	g8) Is there a focal point within the communit...
1	a4__c__9	148	f8.a) Can you mention the name of your balozi ...	170	g9) Can you indicate the name of the focal poi...
2	a4__c__4	149	f9) In what division are you living?	171	g10) In what area / village are you living?
3	referral_note	291	l3) Were you given a paper or record to take w...	216	k3) Do you have a referral note ?

	name	row1	label1	row2	label2
4	h2_1a	296	l6) Did the healthcare provider give you drugs...	221	k7) Did the healthcare provider give you a dru...
5	h2_1b	297	l6.a) Can I take a picture of your drugs/presc...	222	k8) Can I take a picture of your drug prescrip...
6	h2_1c	298	l6.b) Please take a picture of the prescriptio...	223	k9) Please take a picture of the drug prescrip...
7	b1_9	305	m3) What type of visit was it according to the...	211	k1) What type of visit was it?
8	amoxicillin	314	n2) Amoxicillin (Amox) OR Amoxil/Amoxillin DT	225	Amoxicilline (Amox) OU Clamoxyl OU Bactox OU A...
9	aclav	315	n3) Amoxicillin + clavulanic acid OR Amoxiclav...	237	Amoxicilline + Acide Clavulanique (Aclav) OU C...
10	ampicillin	316	n4) Ampicillin OR Ampiclox	234	Ampicilline (Ampi) OU Totapen
11	azithromycin	318	n5) Azithromycin OR Zithromax	235	Azithromycine OU Zithromax
12	benzathine	319	n6) Benzathine benzylpenicillin (benzathine pe...	236	Benzathine-benzylpénicilline OU Extencilline O...
13	penig	320	n7) Benzylpenicillin (Benpen) OR Penicillin G/...	226	Benzylpenicilline OU PéniG
14	ceftriaxone	321	n8) Ceftriaxone OR Rocephin	227	Ceftriaxone OU Rocéphine
15	ciprofloxacin	322	n9) Ciprofloxacin OR Cipon	228	Ciprofloxacine OU Ciproxin OU Cifran
16	cotrimoxazole	324	n10) Cotrimoxazol (CTX / SMX-TMP / CMX) OR Sep...	238	Cotrimoxazol (Cotri/Cotrim) OU Bactrim
17	metronidazol	325	n11) Flagyl OR Metronidazole (Metro)	232	Metronidazole OU Flagyl
18	gentamicin	327	n12) Gentamicin (Genta)	230	Gentamicine OU Gentalline
19	antibiotics	329	n13) Please indicate if any of the following a...	239	k11) Please indicate if any of the following a...
20	antimalarials	330	n14) Please indicate if any of the following a...	240	k12) Please indicate if any of the following a...
21	h2_2	336	n20) Please select all the other treatments th...	243	k13) Please select all the other drugs/treatme...
22	rxsevere	345	o2) Severe disease / severe febrile disease	305	l2) Severe disease / severe febrile disease / ...
23	e2_2a	380	p4) SpO2 value	370	m4) SpO2 value (in %)
24	f2_10a	409	r6a) Choose the unit of Blood glucose value	395	o6) Blood glucose value (in mg/dL)

minor

Table 6: Main Day 0 - Senegal vs. Tanzania - Minor label modifications

	name	row1	label1	row2	label2
0	dobk	20	b1) Do you know the date of birth of the child?	14	a1) Do you know the date of birth of the child?
1	a3_a_7	24	b2) What is the exact date of birth of the child?	18	a2) What is the exact date of birth of the child?
2	a3_a_4	34	b3) What are the year and month of birth of th...	28	a3) What are the year and month of birth of th...
3	yob	35	b4) What is the year of birth of the child?	29	a4) What is the year of birth of the child?
4	quarter	36	b5) Can you further specify in what quarter of...	30	a5) Can you further specify in what quarter of...
...	...	...	...	...	...
118	d2_3b	396	q6.a) WFA z-score	385	n6.a) WFA z-score
119	f2_1	400	r1) What type of laboratory tests were ordered...	388	o1) What type of laboratory tests were ordered...

	name	row1	label1	row2	label2
120	f2_1o	401	r1.a) Please specify	389	o1.a) Please specify
121	f2_3	404	r3) Malaria test result	391	o3) Malaria test result
122	c3_4	426	s5) Is the sickle-cell status recorded?	397	p5) Is the sickle-cell status recorded?

Comparison based on labels

```
f3.compareSimilarLabels(f4)
```

Table 7: Main Day 0 - Senegal vs. Tanzania - Variable names with similar labels

	name1	label1	name2	label2	matchin
64	a1_a_4a	e2.b) If QR code scanning is not possible, ple...	former_timci_id2	c2.b) If QR code scanning is not possible, ple...	0.89466
72	a4_a_11o	f5.a) Please specify.	b2_2b_o	i5.a) Please specify.	0.71263
73	a4_c_10	f6) Second phone number at which you can be re...	a4_a_10a	g3) Is there a phone number at which you can b...	0.72855
83	a4_c_4b_oth	f11.a) Please specify.	a4_c_7	g11.a) Please specify.	0.73560
89	a4_a_6	g1) What is the sex of the child?	a4_a_7	f1) What is the sex of the child?	0.75184
92	a4_a_3	g4) What is the last name of the child?	a4_a_5_3	f3) What is the last name of the child?	0.73512
131	b2_2b_o	i7.a) Please specify.	b2_1o	i7.a) Please specify.	1.00000
161	m3_3o	j21.a) Please specify.	h2_2ao	l21.a) Please specify.	0.74226
168	i2_1a1_cg	l2) Why was ${child_fname} referred?	i2_1a1	l13) Why was ${child_fname} referred?	0.78223
189	azithromycin	n5) Azithromycin OR Zithromax	azithromycin_hf	Azithromycin OR Zithromax	0.88954
190	benzathine	n6) Benzathine benzylpenicillin (benzathine pe...	benzathine_hf	Benzathine benzylpenicillin (benzathine penici...	0.82294
191	penig	n7) Benzylpenicillin (Benpen) OR Penicillin G/...	penig_hf	Benzylpenicillin OR Benpen	0.74841
192	ceftriaxone	n8) Ceftriaxone OR Rocephin	ceftriaxone_hf	Ceftriaxone OR Rocephin	0.84831
193	ciprofloxacin	n9) Ciprofloxacin OR Cipon	ciprofloxacin_hf	Ciprofloxacin OR Ciproxin OR Cifran	0.70101
200	antibiotics	n13) Please indicate if any of the following a...	antibiotics_hf	l19) Please indicate if any of the following a...	0.74981
201	antimalarials	n14) Please indicate if any of the following a...	antimalarials_hf	l20) Please indicate if any of the following a...	0.75079
259	f2_5dec	r5) Haemoglobin level (in g/dL)	f2_5	o5) Haemoglobin level (in g/dL)	0.82636
263	f2_10c	r6c) Blood glucose value (in mg/dL)	f2_10a	o6) Blood glucose value (in mg/dL)	0.79338

Test for choices

```
#choices_df["list_name"].dropna().unique()
```