

PISA 2018 MS: Ultra-Orthodox Design Israel

The CBA assessment design was modified to accommodate the Ultra-Orthodox (UO) schools in Israel. These schools administer only a subset of the assessment materials determined by their cultural and ideological appropriateness to this sector of education (for example, any material referring to the internet is classified as inappropriate). The Ultra-Orthodox sector of education represents about 16% of the Israeli PISA population. Upon national evaluation of the PISA 2018 materials, Table 1 provides an overview of the appropriateness of the PISA Main Survey cognitive materials to the UO schools. In addition to the changes to the cognitive materials, some questionnaire items were also excluded from the version administered to these schools (see Table 6).

Table 1: Overview of appropriateness of the cognitive materials to the UO schools

Ultra-Orthodox Design	Mathematics	Science	Reading (Trend)	Reading (New)
UO appropriate units	37	27	14	0
UO inappropriate units	3	7	15	29
Total Units	40	34	29	29

As a result of the reduced number of units deemed appropriate to be used in the assessment, the CBA Multi-Stage Adaptive Test (MSAT) design could not be administered to these schools. In addition, these schools did not administer the assessment of Global Competence. Therefore, the assessment design for these schools is based on an alternative set of 36 linear forms assembled from adapted clusters based on content that meet the requirements of the Ultra-Orthodox curriculum. The design of the UO forms is shown in Table 2.

Table 2: Testing form design for the UO design

Book Number	Cluster 1	Cluster 2	Cluster 3	Cluster 4
101	R01	R02	S01	S02
102	R03	R04	S02	S03
103	R05	R06	S03	S04
104	R02	R03	S04	S05
105	R04	R05	S05	S06
106	R06a	R01	S06	S01
107	S01	S03	R01	R02
108	S02	S04	R03	R04
109	S03	S05	R05	R06
110	S04	S06	R02	R03
111	S05	S01	R04	R05
119	M01	M03	R01	R03
120	M02	M04	R02	R04
121	M03	M05	R03	R05
122	M04	M06a	R04	R06a
123	M05	M01	R05	R01
124	M06a	M02	R06a	R02
125	R01	R02	S01	M01
126	R03	R04	M02	S02
127	R05	R06a	S03	M03
128	R02	R03	M04	S04
129	R04	R05	S05	M05

Book Number	Cluster 1	Cluster 2	Cluster 3	Cluster 4
112	S06	S02	R06a	R01
113	R01	R03	M01	M02
114	R02	R04	M02	M03
115	R03	R05	M03	M04
116	R04	R06a	M04	M05
117	R05	R01	M05	M06a
118	R06a	R02	M06a	M01

Book Number	Cluster 1	Cluster 2	Cluster 3	Cluster 4
130	R06a	R01	M06a	S06
131	M01	S01	R01	R03
132	S02	M02	R02	R04
133	M03	S03	R03	R05
134	S04	M04	R04	R06a
135	M05	S05	R05	R01
136	S06	M06a	R06a	R02

Where :

- R01-R06a represent reading clusters
- S01-S06 represent science clusters
- M01-M06a represent math clusters

As the UO clusters represent a modified version of the standard clusters (CBA or CBA/PBA), Tables 3-5 show the list of CBA units included in each of these UO clusters. Please note that the adaptations to these were always made at the unit level so only intact units were excluded, rather than items within the units.

Table 3: Mathematics clusters for the UO design

UO Math Cluster	Math Units
M01	MAT/M033-AViewRoom
M01	MAT/M474-RunningTime
M01	MAT/M155-PopulationPyramids
M01	MAT/M411-Diving
M01	MAT/M803-Labels
M01	MAT/M442-Braille
M01	MAT/M462-ThirdSide
M01	MAT/M034-Bricks
M02	MAT/M305-Map
M02	MAT/M496-CashWithdrawal
M02	MAT/M423-TossingCoins
M02	MAT/M192-Containers
M02	MAT/M406-RunningTracks
M02	MAT/M603-NumberCheck
M02	MAT/M571-StopTheCar
M02	MAT/M564-ChairLift
M03	MAT/M447-TileArrangement
M03	MAT/M273-Pipelines

UO Math Cluster	Math Units
M03	MAT/M420-Transport
M03	MAT/M446-ThermometerCricket
M03	MAT/M559-TelephoneRates
M03	MAT/M828-CarbonDioxide
M03	MAT/M464-Fence
M04	MAT/M982-EmploymentData
M04	MAT/M992-Spacers
M04	MAT/M915-CarbonTax
M04	MAT/M906-CrazyAnts
M04	MAT/M00K-WheelchairBasketball
M05	MAT/M909-SpeedingFines
M05	MAT/M949-RoofTrussDesign
M05	MAT/M955-Migration
M05	MAT/M998-BikeRental
M06A	MAT/M905-TennisBalls
M06A	MAT/M954-MedicineDoses
M06A	MAT/M943-Arches
M06A	MAT/M953-FluTest

M03	MAT/M408-Lotteries
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Table 4: Reading clusters for the UO design

UO Reading Clusters	Reading Units
R01	REA/R219-Employment
R01	REA/R220-SouthPole
R02	REA/R227-Optician
R02	REA/R111-Exchange
R02	REA/R055-DruggedSpiders
R02	REA/R104-Telephone
R03	REA/R420-ChildrensFutures

UO Reading Clusters	Reading Units
R03	REA/R412-WorldLanguages
R04	REA/R456-Biscuits
R04	REA/R466-WorkRight
R04	REA/R446-JobVacancy
R05	REA/R455-ChocolateAndHealth
R06A	REA/R083-HouseholdWork
R06A	REA/R442-Galileo

Table 5: Science clusters for the UO design

UO Science Cluster	Science Units
S01	SCI/S408-WildOatGrass
S01	SCI/S413-PlasticAge
S01	SCI/S635-SaveTheFish
S01	SCI/S604-WaterFromFog
S01	SCI/S625-WildfiresAndTheFireTriangle
S01	SCI/S626-SoundInMarineHabitats
S02	SCI/S643-LightBulbs
S02	SCI/S610-Brain-controlledRobotics
S03	SCI/S466-ForestFires
S03	SCI/S256-Spoons
S03	SCI/S326-Milk
S03	SCI/S602-UrbanHeatIslandEffect
S03	SCI/S603-ElephantsAndAcaciaTrees
S03	SCI/S657-InvasiveSpecies

UO Science Cluster	Science Units
S04	SCI/S428-BacterialInMilk
S04	SCI/S634-Vaccination
S04	SCI/S629-SolarCooker
S05	SCI/S498-ExperimentalDigestion
S05	SCI/S514-DevelopmentAndDisaster
S05	SCI/S605-GeothermalEnergy
S05	SCI/S646-Nanoparticles
S05	SCI/S620-Tornadoes
S05	SCI/S645-CarbonDioxideInEarthsAtmosphere
S06	SCI/S478-Antibiotics
S06	SCI/S627-CarTyres
S06	SCI/S638-OilSpills
S06	SCI/S615-Tsunami

Table 6 shows items that were deleted from the student questionnaire for the Ultra-Orthodox design. Note that this table only shows the difference between the national Israeli version and the Ultra-Orthodox version, not the difference between the Master version and the Ultra-Orthodox version.

Table 6: Student questionnaire items deleted from the UO design

Question ID	Item ID	Full Item ID	Stem	Item
ST011	C03TA	ST011C03TA	Which of the following are in your home?	A computer you can use for school work
ST011	C04TA	ST011C04TA	Which of the following are in your home?	Educational software
ST011	C05TA	ST011C05TA	Which of the following are in your home?	A link to the Internet
ST011	C06TA	ST011C06TA	Which of the following are in your home?	Classic literature (e.g. <Shakespeare>)
ST011	C12NA	ST011C12NA	Which of the following are in your home?	Books on art, music, or design
ST011	C13TA	ST011C13TA	Which of the following are in your home?	<country specific> 4WD car
ST011	C14TA	ST011C14TA	Which of the following are in your home?	<country specific> Membership to the theater, GYM, or swimming pool
ST011	C15TA	ST011C15TA	Which of the following are in your home?	<country specific> Equipment for leisure activity (For example for diving, for fishing, for ski)
ST012	C01TA	ST012C01TA	How many of these are there at your home?	Televisions
ST012	C02TA	ST012C02TA	How many of these are there at your home?	Cars
ST012	C03NA	ST012C03NA	How many of these are there at your home?	<Cell phones> with Internet access (e.g. smartphones)
ST012	C04NA	ST012C04NA	How many of these are there at your home?	Computers (desktop computer, portable laptop, or notebook)
ST012	C05NA	ST012C05NA	How many of these are there at your home?	<Tablet computers> (e.g. <iPad®>, <BlackBerry® PlayBook™>)
ST012	C06NA	ST012C06NA	How many of these are there at your home?	E-book readers (e.g. <Kindle™>, <Kobo>, <Bookeen>)
ST012	C07NA	ST012C07NA	How many of these are there at your home?	Musical instruments (e.g. guitar, piano)
ST097	Q01TA	ST097Q01TA	How often do these things happen in your <test language lessons>?	Students don't listen to what the teacher says.
ST097	Q02TA	ST097Q02TA	How often do these things happen in your <test language lessons>?	There is noise and disorder.
ST097	Q03TA	ST097Q03TA	How often do these things happen in your <test language lessons>?	The teacher has to wait a long time for students to quiet down.
ST097	Q04TA	ST097Q04TA	How often do these things happen in your <test language lessons>?	Students cannot work well.
ST097	Q05TA	ST097Q05TA	How often do these things happen in your <test language lessons>?	Students don't start working for a long time after the lesson begins.
ST100	Q01TA	ST100Q01TA	How often do these things happen in your <test language lessons>?	The teacher shows an interest in every student's learning.

Question ID	Item ID	Full Item ID	Stem	Item
ST100	Q02TA	ST100Q02TA	How often do these things happen in your <test language lessons>?	The teacher gives extra help when students need it.
ST100	Q03TA	ST100Q03TA	How often do these things happen in your <test language lessons>?	The teacher helps students with their learning.
ST100	Q04TA	ST100Q04TA	How often do these things happen in your <test language lessons>?	The teacher continues teaching until the students understand.
ST102	Q01TA	ST102Q01TA	How often do these things happen in your <test language lessons>?	The teacher sets clear goals for our learning.
ST102	Q02TA	ST102Q02TA	How often do these things happen in your <test language lessons>?	The teacher asks questions to check whether we have understood what was taught.
ST102	Q03TA	ST102Q03TA	How often do these things happen in your <test language lessons>?	At the beginning of a lesson, the teacher presents a short summary of the previous lesson.
ST102	Q04TA	ST102Q04TA	How often do these things happen in your <test language lessons>?	The teacher tells us what we have to learn.
ST211	Q01HA	ST211Q01HA	Thinking of your past two <test language lessons>: how much do you disagree or agree with the following statements?	The teacher made me feel confident in my ability to do well in the course.
ST211	Q02HA	ST211Q02HA	Thinking of your past two <test language lessons>: how much do you disagree or agree with the following statements?	The teacher listened to my view on how to do things.
ST211	Q03HA	ST211Q03HA	Thinking of your past two <test language lessons>: how much do you disagree or agree with the following statements?	I felt that my teacher understood me.
ST212	Q01HA	ST212Q01HA	How often do these things happen in your <test language lessons>?	The teacher adapts the lesson to my class's needs and knowledge.
ST212	Q02HA	ST212Q02HA	How often do these things happen in your <test language lessons>?	The teacher provides individual help when a student has difficulties understanding a topic or task.
ST212	Q03HA	ST212Q03HA	How often do these things happen in your <test language lessons>?	The teacher changes the structure of the lesson on a topic that most students find difficult to understand.
ST104	Q02NA	ST104Q02NA	How often do these things happen in your <test language lessons>?	The teacher gives me feedback on my strengths in this subject.
ST104	Q03NA	ST104Q03NA	How often do these things happen in your <test language lessons>?	The teacher tells me in which areas I can still improve.

Question ID	Item ID	Full Item ID	Stem	Item
ST104	Q04NA	ST104Q04NA	How often do these things happen in your <test language lessons>?	The teacher tells me how I can improve my performance.
ST213	Q01HA	ST213Q01HA	Thinking of your past two <test language lessons>: how much do you disagree or agree with the following statements?	It was clear to me that the teacher liked teaching us.
ST213	Q02HA	ST213Q02HA	Thinking of your past two <test language lessons>: how much do you disagree or agree with the following statements?	The enthusiasm of the teacher inspired me.
ST213	Q03HA	ST213Q03HA	Thinking of your past two <test language lessons>: how much do you disagree or agree with the following statements?	It was clear that the teacher likes to deal with the topic of the lesson.
ST213	Q04HA	ST213Q04HA	Thinking of your past two <test language lessons>: how much do you disagree or agree with the following statements?	The teacher showed enjoyment in teaching.
ST150	Q04HA	ST150Q04HA	During the last month, how often did you have to read the following types of texts for school (in the classroom or for homework)?	Digital texts including links
ST152	Q05IA	ST152Q05IA	In your <test language lessons>, how often does the following occur?	The teacher encourages students to express their opinion about a text.
ST152	Q06IA	ST152Q06IA	In your <test language lessons>, how often does the following occur?	The teacher helps students relate the stories they read to their lives.
ST152	Q07IA	ST152Q07IA	In your <test language lessons>, how often does the following occur?	The teacher shows students how the information in texts builds on what they already know.
ST152	Q08IA	ST152Q08IA	In your <test language lessons>, how often does the following occur?	The teacher poses questions that motivate students to participate actively.
ST153	Q01HA	ST153Q01HA	During <this academic year>, when you have to read a book or a chapter from a book for your <test language lessons>, does the teacher usually ask you to do the following tasks in the classroom or for homework?	Write a summary of the book or the chapter
ST153	Q02HA	ST153Q02HA	During <this academic year>, when you have to read a book or a chapter from a book for your <test language lessons>, does the teacher usually ask you	List and write a short description of the main characters

Question ID	Item ID	Full Item ID	Stem	Item
			to do the following tasks in the classroom or for homework?	
ST153	Q03HA	ST153Q03HA	During <this academic year>, when you have to read a book or a chapter from a book for your <test language lessons>, does the teacher usually ask you to do the following tasks in the classroom or for homework?	Discuss in small groups with other students who read the same book or chapter
ST153	Q04HA	ST153Q04HA	During <this academic year>, when you have to read a book or a chapter from a book for your <test language lessons>, does the teacher usually ask you to do the following tasks in the classroom or for homework?	Give your personal thoughts about the book or the chapter (e.g. did you like it and if so, why?)
ST153	Q05HA	ST153Q05HA	During <this academic year>, when you have to read a book or a chapter from a book for your <test language lessons>, does the teacher usually ask you to do the following tasks in the classroom or for homework?	Answer questions about the book or the chapter
ST153	Q06HA	ST153Q06HA	During <this academic year>, when you have to read a book or a chapter from a book for your <test language lessons>, does the teacher usually ask you to do the following tasks in the classroom or for homework?	Compare the content of the book or the chapter with your own experience
ST153	Q08HA	ST153Q08HA	During <this academic year>, when you have to read a book or a chapter from a book for your <test language lessons>, does the teacher usually ask you to do the following tasks in the classroom or for homework?	Compare the book with other books or texts on a similar topic
ST153	Q09HA	ST153Q09HA	During <this academic year>, when you have to read a book or a chapter from a book for your <test language lessons>, does the teacher usually ask you to do the following tasks in the classroom or for homework?	Select a passage you liked or disliked and explain why
ST153	Q10HA	ST153Q10HA	During <this academic year>, when you have to read a book or a chapter from a book for your <test	Write a text related to what you have read

Question ID	Item ID	Full Item ID	Stem	Item
			language lessons>, does the teacher usually ask you to do the following tasks in the classroom or for homework?	
ST158	Q01HA	ST158Q01HA	At school, have you ever been taught the following things?	How to use keywords when using a search engine such as <Google©>, <Yahoo©>, etc.
ST158	Q02HA	ST158Q02HA	At school, have you ever been taught the following things?	How to decide whether to trust information from the Internet
ST158	Q03HA	ST158Q03HA	At school, have you ever been taught the following things?	How to compare different web pages and decide what information is more relevant for your school work
ST158	Q04HA	ST158Q04HA	At school, have you ever been taught the following things?	To understand the consequences of making information publicly available online on <Facebook©>, <Instagram©>, etc.
ST158	Q05HA	ST158Q05HA	At school, have you ever been taught the following things?	How to use the short description below the links in the list of results of a search
ST158	Q06HA	ST158Q06HA	At school, have you ever been taught the following things?	How to detect whether the information is subjective or biased
ST158	Q07HA	ST158Q07HA	At school, have you ever been taught the following things?	How to detect phishing or spam emails
ST168	Q01HA	ST168Q01HA	Which of the following statements best describes how you read books (on any topic)?	
ST176	Q01IA	ST176Q01IA	How often are you involved in the following reading activities?	Reading emails
ST176	Q02IA	ST176Q02IA	How often are you involved in the following reading activities?	<Chat on line> (e.g. <Whatsapp®>, <Messenger®>)
ST176	Q03IA	ST176Q03IA	How often are you involved in the following reading activities?	Reading online news
ST176	Q05IA	ST176Q05IA	How often are you involved in the following reading activities?	Searching information online to learn about a particular topic
ST176	Q06IA	ST176Q06IA	How often are you involved in the following reading activities?	Taking part in online group discussions or forums
ST176	Q07IA	ST176Q07IA	How often are you involved in the following reading activities?	Searching for practical information online (e.g. schedules, events, tips, recipes)
ST166	Q01HA	ST166Q01HA	In your opinion, how appropriate are the following strategies in reaction to this email?	Answer the email and ask for more information about the smartphone

Question ID	Item ID	Full Item ID	Stem	Item
ST166	Q02HA	ST166Q02HA	In your opinion, how appropriate are the following strategies in reaction to this email?	Check the sender's email address
ST166	Q03HA	ST166Q03HA	In your opinion, how appropriate are the following strategies in reaction to this email?	Click on the link to fill out the form as soon as possible
ST166	Q04HA	ST166Q04HA	In your opinion, how appropriate are the following strategies in reaction to this email?	Delete the email without clicking on the link
ST166	Q05HA	ST166Q05HA	In your opinion, how appropriate are the following strategies in reaction to this email?	Check the website of the mobile phone operator to see whether the smartphone offer is mentioned
ST196	Q02HA	ST196Q02HA	How easy do you think it would be for you to perform the following tasks on your own?	Explain how carbon-dioxide emissions affect global climate change
ST196	Q03HA	ST196Q03HA	How easy do you think it would be for you to perform the following tasks on your own?	Establish a connection between prices of textiles and working conditions in the countries of production
ST196	Q04HA	ST196Q04HA	How easy do you think it would be for you to perform the following tasks on your own?	Discuss the different reasons why people become refugees
ST196	Q05HA	ST196Q05HA	How easy do you think it would be for you to perform the following tasks on your own?	Explain why some countries suffer more from global climate change than others
ST196	Q06HA	ST196Q06HA	How easy do you think it would be for you to perform the following tasks on your own?	Explain how economic crises in single countries affect the global economy
ST196	Q07HA	ST196Q07HA	How easy do you think it would be for you to perform the following tasks on your own?	Discuss the consequences of economic development on the environment
ST197	Q12HA	ST197Q12HA	How informed are you about the following topics?	Equality between men and women in different parts of the world
ST214	Q02HA	ST214Q02HA	How well does each of the following statements below describe you?	I want to learn more about the religions of the world.
ST221	Q01HA	ST221Q01HA	Do you learn the following at school?	I learn about the interconnectedness of countries' economies.
ST221	Q02HA	ST221Q02HA	Do you learn the following at school?	I learn how to solve conflicts with other people in our classrooms.
ST221	Q03HA	ST221Q03HA	Do you learn the following at school?	I learn about different cultures.
ST221	Q04HA	ST221Q04HA	Do you learn the following at school?	We read newspapers, look for news on the internet or watch the news together during classes.
ST221	Q05HA	ST221Q05HA	Do you learn the following at school?	I am often invited by my teachers to give my personal opinion about international news.
ST221	Q06HA	ST221Q06HA	Do you learn the following at school?	I participate in events celebrating cultural diversity throughout the school year.

Question ID	Item ID	Full Item ID	Stem	Item
ST221	Q07HA	ST221Q07HA	Do you learn the following at school?	I participate in classroom discussions about world events as part of the regular instruction.
ST221	Q08HA	ST221Q08HA	Do you learn the following at school?	I analyse global issues together with my classmates in small groups during class.
ST221	Q09HA	ST221Q09HA	Do you learn the following at school?	I learn that how people from different cultures can have different perspectives on some issues.
ST221	Q11HA	ST221Q11HA	Do you learn the following at school?	I learn how to communicate with people from different backgrounds.