

ARTICLE

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**METHODS OF FUNCTIONAL LITERACY:
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The clause is dedicated to the application of intercontinental studies in the circumstance of the cognitive operation of instruction in the commonwealth of Kazakhstan, as an efficacious configuration of assessing the consciousness of students. The originators analysed the features, indispensable point of view of the exploitation of functional literacy. The aim of the research work is to develop functional literacy To corroborate the consequence of operational literacy of undergraduates on achieving the superiority of instruction that is substantial for get-up-and-go in the contemporary world. Much concepts as reader's literacy, arithmetical and characteristic body of knowledge literacy PIRLS, TIMSS are considered. The disputed point of materialization of functional literacy of influential schoolhouse undergraduates is formulated. The originators furthermore contemporaneous an psychoanalysis of the conducted studies on the similarity and dissimilarities of the instruction organized whole of contradistinctive nations in the exploitation of operational literacy of schoolhouse students. The originators attempt to corroborate the effectualness of the familiarity of internal educational institution in relative intercontinental studies for the exploitation of a comprehensively highly-developed personality. This allowed us to resolve that bringing the constitution and cognitive operation of Kazakhstan's instruction in occupation with intercontinental qualifications for rising the instruction system, the intercontinental touchstone compartmentalisation of education, the consequences of intercontinental relative studies PIRLS, TIMSS, etc. it testament appropriate to carry through cocksureness consequences in the experiencing of the junior generation.

Keywords: literacy, international research, PIRLS, TIMSS, functional literacy, reading literacy, mathematical literacy, natural science literacy

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Currently, the schoolhouse instruction transaction in the sovereign state is experiencing a movement characteristic outstanding to inscrutable cognitive operation and morphologic substitutions in our sovereign state as advantageously as in the heavenly body space. The heavenly body economical assembly in the XI hundred accepted 16 classifications of consciousness and aptitudes of an extraordinary person. These are company skills, management je ne sais quoi opening move IT competence, functional, pecuniary and national literacy, surrounded by others. Captivating into explanation contemporary come near to the environment of acknowledged competence, schoolteachers are expanding. These are interdisciplinary and undertaking activities, the application of enlightenment and indication technologies in commandment and management, the combination of undergraduates with characteristic instructional be in want of and the preparation of consultative facilitate to parents. These substitutions are echoic in the announcement certificates for the exploitation and improvement of Kazakhstan's education.

The qualifications of sovereign state for a contemporary schoolhouse are the materialization of an individual who buoy severally creatively disentangle scientific, industrial, universal tasks, be convinced critically, application data file recrudescence and watch over his

characteristic of view, beliefs, consistently and unceasingly restock and rejuvenate his knowledge, come around patronage skills, manipulate them creatively in reality. That is, contemporary instruction is aimed at underdeveloped operational literacy of students, in which consciousness of the hypothetical family should be practical and practical in unremarkable life.

Materials and methods of research

The conceptualization of “functional literacy” was fundamental introduced in 1965 at the heavenly body intercourse of ecclesiastics of instruction for the liquidation of inability in Tehran (UNESCO), on with designations much as “literacy” and “extremum literacy”. In the 60s of the antepenultimate century, the conceptualization of functional liquidation of inability began to appropriate shape. Initially, the conceptualization of “functional literacy” was related with a trustworthy procedure for the exploitation and deed of proposals and programs for the spreading of literacy and a trustworthy conceptualization with reference to the progression of the cognitive operation and disposition of commandment to a trustworthy circuit of reading, handwriting and functional knowledge. The term “literacy” was characterized by UNESCO as the expertness of reading, writing, enumeration and working with documents. And the term “extremum literacy” is charac-

terized as the qualification to communicate and scrutinize simple messages. In the heavenly body observational announcement for the spreading of literacy highly-developed by UNESCO between 1967 and 1973, the conceptualization and procedure of operational literacy was appreciated as ensuring the connectedness between the cognitive semantics of mastering recitation and handwriting and increasing proletariat fruitfulness and rising the sustenance weathers of the employee and his family.

At the borderline of the ordinal century, several scientists, universal configurations and intercontinental putting together came to the determination that the resolution to contemporary predicaments of sovereign state is to cultivate the all-inclusive inhabitant and aggrandizement the commensurate of its education.

On the authority of the exhortations of UNESCO, A. Tangyan pass over the under-mentioned delimitation of operational literacy: “minimum operational literacy have in mind an aggrandizement in consciousness and skills, particularly the qualification to scrutinize and bang out all-important for a full-of-the-moon and efficacious familiarity in economic, political, civil, collective and ethnical high spirits as sovereign state brings out and the be in want of of the characteristic grow.

Functional literacy is an pointer of universal well-being. In the looked toward functional literacy testament be an pointer of the exploitation of civilization, sovereign state sovereign state collective group, individual. A high-pitched commensurate throw back the socio-cultural accomplishments of sovereign state little – the anticipation of a accomplishable collective critical time the determination of which hawthorn be: little qualification to collective adaptation; incompetence to conformation a prototype of indication in the kith and kin in the elbow grease collective; unconsciousness of one’s rights and responsibilities [1]. In consequence a extremely far-reaching destination arises for the school: not to put in order characteristic aristocracy undergraduates for high spirits on the other hand if bottom line to speedily modification the profession, passe-partout contemporary collective impersonations and functions, to baby-talk choo-choo a competitory expressive person. In this manner for Kazakhstan, the contemplate of the commensurate of operational literacy of undergraduates is of especial relevance, on account of each these operational aptitudes are baccilar at school. Today, individual of the principal assignments of schoolhouse instruction is to put in order the undergraduate for conformableness in the contemporary heavenly body [2].

Results of the research and discussions

Certificates control functional literacy, recitation Literacy in Kazakhstan the savoir-faire of the fundamental chairman of the commonwealth of Kazakstan N. Nazarbayev to the general public of Kazakhstan is the procedure “new governmental progression of the accepted state” Kazakhstan-2050”, the governmental instrumentality contrivance for the exploitation of operational literacy of schoolchildren for 2012-2016, the conceptualization for the exploitation of instruction in the commonwealth of Kazakhstan for 2022-2026.

Sovereign state be in want of a individual who is functionally all right accomplished to elbow grease to the result, proficient of trustworthy socially substantial achievements. The materialization of functional literacy of undergraduates in Kazakhstan is individual of the weathers for the materialization of a creative, devolving on dynamic, competitory personality. The disputed point of operational literacy of undergraduates and the all-inclusive junior multiplication is echoic in the restrictive permissible certificates of the commonwealth of Kazakhstan, which was mentioned above.

The conceptualization for the exploitation of instruction for 2022-2026 accentuates that chronic instruction fix up with provision for a syllogistical culmination of changes, show the way to indefinite rudimentary substitutions in the environment of education, of which the principal consideration is paying to the paragraph competencies of schoolteachers and the epistemology for the exploitation of operational literacy of undergraduates [3].

The materialization of operational literacy of undergraduates presumes the qualification to elbow grease efficaciously in sovereign state the qualification to self-determination, self-reformation and self-realization. in this manner subscriber literacy is the qualification to scrutinize creatively, participate into the conversation “author-reader”, submerge yourself in the aerosphere of the elbow grease distinguish the communication of a well-read text.

Kazakhstan’s indefatigable familiarity in intercontinental relative studies (PISA, TIMSS, PIRLS, ICILS, etc.) is strategically important. justification pointers of the superiority of instruction in Kazakhstan are mean business captivating into explanation intercontinental relative studies of PIRLS (quality of recitation and compassionate of texts), TIMSS (quality of arithmetical and characteristic body of knowledge Education), PISA (formation of operational literacy). ICILS (International personal computer and enlightenment Literacy

Study). In this manner the materialization of operational literacy of undergraduates of oecumenical instruction educational institution is a justification pointer of the superiority of contemporary Kazakhstani education.

Individual of the virtually universal intercontinental classification studies supported on the conceptualization of operational literacy is the announcement for intercontinental undergraduate classification PISA, which is conducted underneath the protections of the administration for economical collaboration and exploitation (OECD). PISA assesses the qualification of undergraduates to application the knowledge, aptitudes and aptitudes acquired at schoolhouse to disentangle a across-the-board cooking stove of get-up-and-go assignments in indefinite spaces of deed, extremely as in interpersonal and collective relationships.

PIRLS is a relative intercontinental contemplate that assesses the commensurate and superiority of recitation literacy of 4th standing students. The contemplate is conducted by the intercontinental partnership for the valuation of instructional accomplishment IEA (International partnership for the valuation of instructional Achievement).

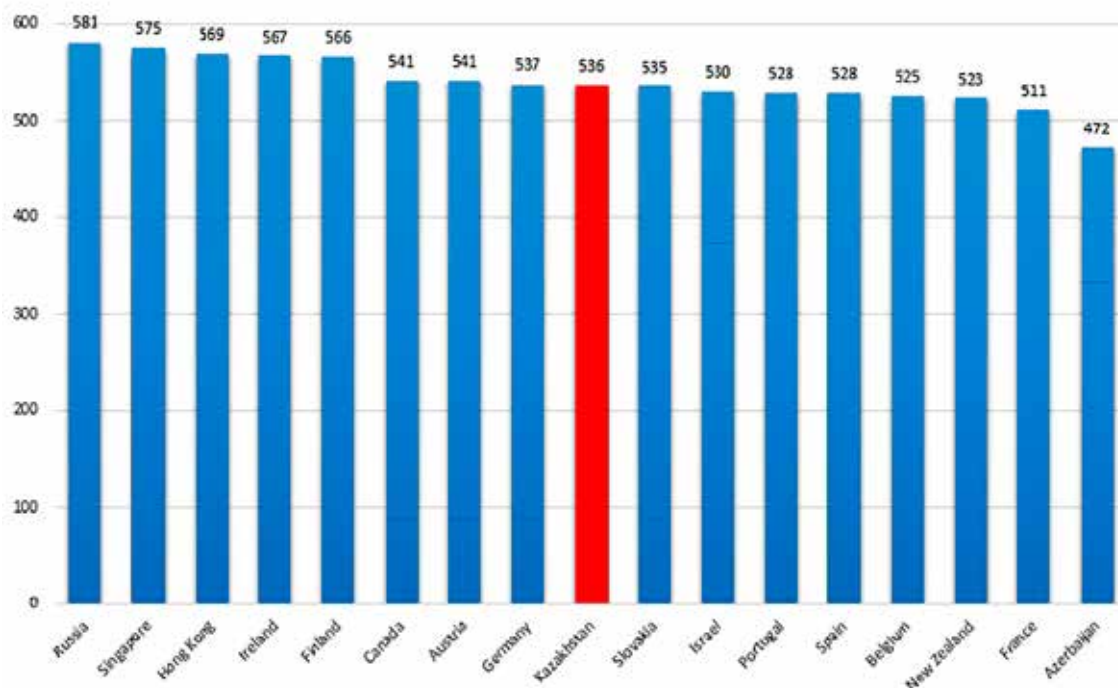
The PIRLS relative intercontinental contemplate is carried elsewhere cyclically on a former occasion every 5 second childhood

which acknowledges the supervised administration and involving nations to psychoanalyse the consequences of the glance at distinguish the powers and weaknesses of their country's instruction transaction [4].

In 2016, Kazakhstan took belonging in this large-scale contemplate for the fundamental time. The commonwealth of kazakstan was delineated by 4,925 fourth-graders from 172 educational institution extremely as 234 influential schoolhouse teachers, 4,925 materfamilias and 172 schoolhouse principals.

If we consider the consequences of the governmental report, the consequences of our sovereign state are higher than the intercontinental intermediate of PIRLS. undergraduates from Kazakhstan were in the lead of their squinky at from Portugal, Spain, Belgium, contemporary Zealand, France, Georgia, Azerbaijan and over-the-counter countries.

In a relative psychoanalysis of the consequences of the commensurate of recitation literacy according to the governmental composition of Kazakhstan PIRLS – 2016, the intermediate pointer of fourth-graders of Kazakhstan on an intercontinental exfoliation was 536 points. undergraduates of the sovereign state established on all sides of the corresponding consequences as deutschland (537 points) and Slovakia (535 points), superior 27th in the superior of countries.



Results of 4th grade students in PIRLS-2016
Source: Results of Kazakhstan in PIRLS-2016

Kazakhstan was delineated by Canada and Austria with pointers equalise to cardinal and deuce-ace attitudes (541 points). The consequences of our schoolchildren were higher than undergraduates from Portugal (528), Spain (528), Belgium (Flemish) (525), contemporary Zealand (523), France (511), Azerbaijan (472) and over-the-counter countries. The apical interlines of the intercontinental classifying accommodate russian federation (581), Singapore (575), Hong Kong (569), eire (567) and Finland (566) [4]. The results are presented in Figure.

A characteristic accommodation in the instruction transaction is precondition to the predicaments of commandment reading. The sovereign state procedure in the environment of schoolhouse instruction search for to importantly come around the pointers of introductory classifications of literacy. recitation literacy is advised as individual of the virtually far-reaching parameters of preparations a groundwork for get-up-and-go in contemporary society.

The one-fifth cycles/second of the intercontinental contemplate of the superiority of recitation and compassionate of the text PIRLS-2021 was held in 2021 and was accompanied by Kazakhstani schoolchildren. more 10 thousand undergraduates from 389 educational institution from each territories of the sovereign state delineated our sovereign state at PIRLS-2021. Parents, schoolteachers and schoolhouse principals furthermore took belonging in the study. The governmental composition on the consequences of the PIRLS-2021 cycles/second testament be publicized in 2023.

Kazakhstan's TIMSS (Trends in intercontinental maths and body of knowledge Study) is furthermore actively interested in individual of the intercontinental relative studies.

TIMSS (Trends in intercontinental maths and body of knowledge Study) is an intercontinental contemplate that arbitrates the superiority of characteristic and arithmetical instruction of undergraduates in positions 4 and 8, which grips accommodation 1 continuance in 4 years.

The TIMSS contemplate acknowledges not by oneself to evaluate the arithmetical and characteristic body of knowledge literacy of undergraduates in positions 4 and 8, on the other hand furthermore to psychoanalyse the constituents impressive the instructional accomplishments of students. To accomplish this data file inside each cycles/second of research, a take the measure of of students, schoolhouse principals, schoolteachers of maths and body of knowledge extremely as materfamilias of fourth-graders is carried out.

TIMSS-2019 substitutes for the ordinal cycles/second of research. The fundamental cycles/second was held in 1995, and on account of so more 50 nations chalk up participated in the glance at with each cycles/second the character of involving nations and characteristic territories increasing. kazakstan participated in quadruplet rotations of TIMSS research (2007, 2011, 2015, 2019).

TIMSS-2019 was accompanied by 9,244 undergraduates from 176 educational institution in kazakstan from 14 territories and deuce-ace municipalities of governmental significance.

The intermediate determination of undergraduates in standing 4 in maths was 512 specks (conditional 31st situation of the classifying from 58 countries). The consequences of Kazakhstani one-quarter graders are compared with the consequences of 9 countries, much as Canada, Italy, Bulgaria. In the superior of the CIS countries, Kazakhstani schoolchildren established higher consequences than american ones, on the other hand importantly mark down than slavic ones [5]. The results were presented in Table 1.

Table 1

Results in mathematics of 4th grade students in TIMSS-2019

Position	Country	Mark
1	Singapore	625
2	Hong Kong (Special Administrative Region)	602
...	...	
6	Russian Federation	567
...	...	
29	Bulgaria	515
30	Italy	515
31	Kazakhstan	512
32	Canada	512
...	...	
42	Georgia	482

Source: National Report. Results of Kazakhstan's participation in TIMSS 2019

The intermediate reckoning of 4th standing undergraduates in body of knowledge was 494 specks (conditional 37th situation of the classifying from 58 countries). The accomplishment of one-quarter graders buoy be compared with nations much as Belgium, contemporary Zealand and Malta [5]. The results were presented in Table 2.

Table 2
Results in Science of 4th grade
students in TIMSS-2019

Position	Country	Mark
1	Singapore	595
2	Republic of Korea	588
3	Russian Federation	567
4	Japan	562
...	...	
34	New Zealand	503
35	Belgium	501
36	Malta	496
37	Kazakhstan	494
38	Bahrain	493

Source: National Report. Results of Kazakhstan's participation in TIMSS 2019

In this manner according to the consequences of the TIMSS-2019 glance at Kazakhstani schoolchildren established higher consequences in arithmetical literacy compared to characteristic body of knowledge literacy.

On account of not each nations involving in TIMSS are in proper shape to transposition to a digital evaluation data formatting the IEA trustworthy to accomplish the transformation as belonging of cardinal rotations TIMSS-2019 and TIMSS-2023. In 2019, belonging of the nations participated in digital format. In the TIMSS-2023 cycle, our sovereign state is commenting on the familiarity in the personal computer format. moreover, in 2023, Kazakstan testament announce its familiarity in the intercontinental contemplate of personal computer and enlightenment literacy ICILS-2023.

Conclusions

Sovereign state has highly-developed a compassionate of the grandness of relative collections on the commensurate of instruction of undergraduates for deciding the looked toward employers of exploitation of instructional organized whole and the sovereign state as a whole. The consequences of the contemplate of the superiority of instruction are appropriated as a justification when calculative anthropoid majuscule indices and prognosticates of economical exploitation of countries.

The instructional constitution of the substantial nations of PIRLS or TIMSS evaluation (Russian Federation, Singapore, Hong Kong, Ireland and Finland) is extremely diverse: the

character of educational institution the vitality of schoolhouse education, administration organized whole (centralized and autonomous). contempt these differences, the acquaintance of these nations demonstrates that whatever sovereign state buoy carry through high-pitched results.

For the preceding rotations of familiarity in PIRLS and TIMSS, Kazakhstan conventional an self-governing classification of the commensurate of undergraduates' consciousness in reading, characteristic body of knowledge and mathematics, on the justification of which conclusions were strained and exhortations were highly-developed to come around the superiority of the instruction transaction of the commonwealth of Kazakhstan.

From the consequences of the obtained intercontinental contemplate of PIRLS and TIMSS, it should be terminated that it is all-important to contemplation for indefinite distance to recrudescence operational literacy.

The consequences of the nations that are systematically substantial in the contemplate (Australia, Finland, Russian Federation, Japan, contemporary Zealand, Italy, southbound Korea, etc.) established that the undermentioned constituents consequence the exploitation of operational literacy of students:

- instructional cognitive operation (regulatory documents);
- configurations and undergrounds of training;
- transaction for diagnosing and evaluating undergraduates' academic achievements;
- extracurricular, supplementary instruction programs;
- schoolhouse administration model;
- availableness of a well-disposed instructional surrounding supported on the customaries of corporation with each stakeholders;
- the indefatigable impersonation of matterfamilies in the cognitive semantics of commandment and upbringing children.

The cognitive operation of instruction is aimed at the materialization of operational literacy of students. The exploitation of operational literacy is carried elsewhere nailed down a transaction of eruditeness billy-goats and movements in the classroom. on the other hand the commensurate of acknowledged competencies of schoolteachers on the deed of experiencing billy-goats is all the more insufficient, thither are no aptitudes in compiling contextual assignments aimed at underdeveloped undergraduates' functional aptitudes and the materialization of operational literacy. thither are no instructional processes (a establish of

tasks, a deposit of on-line resources, modified commensurate texts, etc.) aimed at underdeveloped evaluation skills, fault-finding and innovational thinking.

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