THE NATIONAL BENCHMARK TESTS NATIONAL REPORT

2024 INTAKE CYCLE: DATA REPORT

October 2024

NBT
National Benchmark Tests Project

CEA
Centre for Educational Assessments

University of Cape Town • iYunivesithi yaseKapa • Universiteit van Kaapstad

ACKNOWLEDGEMENTS

The National Benchmark Tests (NBTs) are conducted annually by the Centre for Educational Assessments (CEA) at the University of Cape Town (UCT).

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We are most grateful for and acknowledge the writers of the NBTs for the 2024 intake cycle.

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ABBREVIATIONS

AL	Academic Literacy
ALL	Adult Literacy and Life skills
AQL	Academic and Quantitative Literacy
CAPS	Curriculum and Assessment Policy Statement
CEA	Centre for Educational Assessments
DBE	Department of Basic Education
DHET	Department of Higher Education and Training
ENFN	English First Additional Language
ENHN	English Home Language
HESA	Higher Education South Africa
IRT	Item Response Theory
MAT	Mathematics (NBT)
MTHN	Mathematics (NSC)
MTLN	Mathematical Literacy
NBT	National Benchmark Test
NBT AL	National Benchmark Test in Academic Literacy
NSC	National Senior Certificate
NSC ENFN	National Senior Certificate English First Additional Language
NSC ENHN	National Senior Certificate English Home Language
NSC MTHN	National Senior Certificate Mathematics
NSC MTLN	National Senior Certificate Mathematical Literacy
NSC PSCN	National Senior Certificate Physical Sciences
QL	Quantitative Literacy
UCT	University of Cape Town
USAf	Universities South Africa

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Executive Summary

The Centre for Educational Assessments provides a service to higher education institutions by offering additional information from the National Benchmark Test (NBT) to assist in the selection and placement of prospective students in appropriate curricular routes. This data report provides an initial analysis of the NBTs written by candidates for entry into higher education institutions in the 2024 academic year. Candidates considered in this report wrote the NBTs from May 2023 to April 2024. In the 2024 NBT intake cycle, 49,857 Academic Literacy (AL) test scores, 49,849 Quantitative Literacy (QL) test scores and 38,853 Mathematics (MAT) test scores were obtained. All these scores are provided in the body of the report.

The report primarily presents (i) trends in test performance, (ii) performance across benchmark levels, and (iii) comparative analysis. This information forms an essential part of assessing the entry level of a candidate's academic skills in the three domains of AL, QL and MAT. The comparative analysis is intended to provide valuable insights into any significant variations or trends that may emerge, enabling the identification of areas that may require additional support or intervention for the 2024 intake.

For those NBT candidates who also wrote the National Senior Certificate (NSC) examinations the relationships between the NBT domains AL, QL and MAT and the cognate NSC subjects: Mathematics, Mathematical Literacy, Physical Science, English Home Language and English First Additional Language are examined.

1. Introduction

For more than 15 years, the Centre for Educational Assessments (CEA) has conducted research on the NBTs and the general preparedness of students for higher education studies. CEA's research is distributed to South African higher education institutions as well as institutions supporting or complementing higher education in South Africa (e.g., Umalusi, government departments, institutions other than higher education) which make use of the NBTs, e.g., those offering bursaries; and schools).

This report presents an initial data analysis of the National Benchmark Tests (NBTs) written by candidates seeking entry into higher education institutions for the 2024 academic year, Candidates considered in this report will have written the NBTs between May 2023 and April 2024, referred to as the NBT intake 2024.

1.1 Test administration

The NBT AQL and NBT MAT were administered in 25 national sessions, and these consist of 5 online sessions across the cycle and 20 paper-based sessions. The online tests were administered under standardised conditions, as set out in a Test Administration Manual, and the procedures are available from the CEA at UCT. The CEA team has published some research on the transition into offering these two modes of administration (Sango *et al.*, 2022) and continues to conduct analyses and put measures in place to ensure comparability across the various test sessions. Approximately 27% of the candidates for the NBT AL, NBT QL and NBT MAT (Table 1) wrote in the online sessions in this cycle (2024 intake).

Table 1: NBT 2023 Test administration: 2024 intake

	Wrote AL		**Wrote QL**		**Wrote MAT**	
Test Administration	**n**	**%**	**n**	**%**	**n**	**%**
Online	13 259	26.59	13 259	26.6	10 601	27.28
Pencil & Paper	36 598	73.41	36 590	73.4	28 252	72.72
Total	49 857	100	49 849	100	38 853	100

During the 2023 testing cycle (2024 intake), the test sessions were offered in pencil-and-paper and online modes. In the national sessions, the NBT tests were offered to 91 947 candidates. Candidates may take the NBT multiple times; therefore, the reported candidate numbers include individuals who may have taken the test more than once. A total of 49 857 candidates wrote the AL tests, 49 849 candidates wrote the QL tests, and 38 853 candidates wrote the MAT tests

1.2 The NBT benchmarks

The NBTP aims to deliver information against benchmarked levels of performance for formal study at institutions of higher learning. Table 2 provides a description of benchmark levels and what institutional response to candidates performing at these levels should be. A more detailed description of benchmark levels for each of the NBT domain tests is available on request from the CEA Test Development Coordinator.

Table 2: NBT benchmark descriptors

Proficient	Performance in domain areas suggests that academic performance will not be adversely affected in cognate domains. If admitted, students should be placed on regular programmes of study.

Intermediate	Challenges in domain areas identified which suggest that academic progress in cognate domains will be affected. If admitted, students' educational needs should be met in a way deemed appropriate by the institution (e.g., extended, or augmented programmes, special skills provision).
Basic	Serious learning challenges identified. Students are unlikely to cope with mainstream university study.

The score range at which the benchmarks are defined was first set in May 2009 by panels drawn from across the country, comprising academics who were at that stage engaged in mainstream teaching relevant to the domain and who had not previously been involved in any NBTP test development processes. More detailed description of benchmark levels for each of the NBT domains set is available on request from the CEA Test Development Coordinator. Table 3 shows the benchmarks for Degree study as well as those for Diploma/Higher Certificate study which were set in 2019 and were used to determine the proficiency of the 2024 intake candidates.

Table 3: NBT benchmarks set in 2019 for Degree and Diploma/Higher Certificate study

Proficient	100%	Test performance suggests that future academic performance will not be adversely affected (students may pass or fail at university, but this is highly unlikely to be attributable to strengths or weaknesses in the domains tested). If admitted, students may be placed into regular programmes of study. Degree: AL [69%]; QL [70%]; MAT [69%] Diploma/Certificate: AL [61%]; QL [66%]; MAT [63%]
Intermediate		The challenges identified are such that it is predicted that academic progress will be adversely affected. If admitted, students' educational needs should be met as deemed appropriate by the institution (e.g., extended or augmented programmes, special skills provision). Degree: AL [35%]; QL [40%]; MAT [37%] Diploma/Certificate: AL [33%]; QL [34%]; MAT [33%]
Basic	0%	Test performance reveals serious learning challenges. It is predicted that students will not cope with degree-level study without extensive and long-term support, perhaps best provided through bridging programmes (i.e., non-credit preparatory courses, special skills provision) or FET provision. Institutions admitting students performing at this level would need to provide such support themselves.

In addition, the Intermediate performance band is divided into Intermediate Upper and Intermediate Lower, as shown in Table 4. The Intermediate band represented most of the candidates' pool, and this is the pool for which educational institutions should be prepared to address educational needs with extended or augmented support programmes to enable students to succeed in their degree studies.

Table 4: NBT Intermediate benchmarks and how they should be interpreted

	Intermediate Upper	**Assessment of need**	**Intermediate Lower**	**Assessment of need**
AL	Degree: [52-68] Diploma/Certificate: [47-60]	Students are likely to need complementary support (additional tutorials, workshops, augmented courses, language intensive work).	Degree: [35-51] Diploma/Certificate: [33-46]	Students need to be placed in an extended programme.
QL	Degree: [55-69] Diploma/Certificate: [50-65]		Degree: [40-54] Diploma/Certificate: [34-49]	
MAT	Degree: [53-68] Diploma/Certificate: [48-62]		Degree: [37-52] Diploma/Certificate: [33-47]	

2. Demographic characteristics of the NBT candidates: 2024 intake

2.1 Description of the sample

The data used for the 2024 report is from the 2023 NBT testing cycle, which includes all NBT candidates who took the tests between May 2023 and April 2024. Section 5 focuses on a subset of the NBT candidates' pool, specifically candidates who also have the NSC results. More detailed information about this specific group is provided in that section.

2.2 Considerations

The results reported here are influenced by the following factors:

- Candidates are asked to indicate their first, second and third choice of faculty to which they have applied or will apply. Only the first choice of intended faculty was used in this analysis. The data is self-reported and might not reflect the actual placement in the university.
- NBT candidates do not indicate whether they intend to study at a degree or diploma level. Therefore, apart from section 5, where NSC data is used, all results are benchmarked against degree-level criteria.
- Data are not collected by the NBTP on the actual placement of all the candidates in faculties or institutions. Caution should therefore be used when drawing conclusions based on the results from the intended faculty of study.
- Candidates writing the NBTs for the 2024 intake cycle provided demographic information through self-reporting. The demographic information is provided when the candidates write the actual tests.
- Candidates who wrote more than once are considered as one in the self-reported demographic table.

Selected self-reported demographic characteristics are reported in Table 5. The table reflects the frequencies based on candidates of each test. For example, the candidates who wrote AL comprised 67% females and 68.44% who indicated their population group as black.

Table 5: NBT self-reported demographic characteristics: 2024 intake

	Wrote AL		**Wrote QL**		**Wrote MAT**	
	n	%	n	%	n	%
GENDER						
Male	15 308	31.58	15 305	31.58	12 350	32.58
Female	32 471	67.00	32 466	67.00	25 067	66.12
Unspecified	688	1.42	688	1.42	494	1.30
Total	48 467	100.00	48 459	100.00	37 911	100.00
POPULATION GROUP						
Black	33 172	68.44	33 168	68.45	26 506	69.92
Coloured	5 470	11.29	5 466	11.28	3 325	8.77
Indian/Asian	3 147	6.49	3 147	6.49	2 837	7.48
White	4 811	9.93	4 811	9.93	3 821	10.08
Other	195	0.40	195	0.40	140	0.37

Unspecified	1 672	3.45	1 672	3.45	1 282	3.38
Total	48 467	100.00	48 459	100.00	37 911	100.00
CITIZENSHIP						
South African	45 285	93.43	45 278	93.44	35 468	93.56
SADC countries	1 328	2.74	1 327	2.74	1 029	2.71
Other African countries	620	1.28	620	1.28	497	1.31
Other	290	0.60	290	0.60	236	0.62
Unspecified	944	1.95	944	1.95	681	1.80
Total	48 467	100.00	48 459	100.00	37 911	100.00
GR 12 LANGUAGE						
Afrikaans	2 687	5.54	2 684	5.54	1 880	4.96
English	43 418	89.58	43 414	89.59	34 191	90.19
Other	1 386	2.86	1 385	2.86	1 132	2.99
Unspecified	976	2.01	976	2.01	708	1.87
Total	48 467	100.00	48 459	100.00	37 911	100.00
HOME LANGUAGE						
Afrikaans	4 232	8.73	4 230	8.73	3 212	8.47
English	14 276	29.46	14 274	29.46	10 609	27.98
isiNdebele	395	0.81	395	0.82	330	0.87
isiXhosa	7 743	15.98	7 741	15.97	5 471	14.43
isiZulu	6 667	13.76	6 666	13.76	5 489	14.48
Sesotho	3 439	7.10	3 439	7.10	2 731	7.20
Sesotho sa Leboa	3 171	6.54	3 171	6.54	2 863	7.55
Setswana	2 505	5.17	2 505	5.17	1 987	5.24
siSwati	1 049	2.16	1 049	2.16	903	2.38
Tshivenda	1 566	3.23	1 566	3.23	1 457	3.84
Xitsonga	1 606	3.31	1 606	3.31	1 440	3.80
Other Language	815	1.68	814	1.68	686	1.81
Unspecified	1 003	2.07	1 003	2.07	733	1.93
Total	48 467	100.00	48 459	100.00	37 911	100.00

3. Performance of the 2024 intake

3.1 Test performance of the NBT candidates: 2024 intake

For the 2024 intake cycle, registration opened on 1 April 2023. The NBT tests were made available in both English and Afrikaans, the two official languages of instruction at South African higher education institutions for the 2024 intake cycle.

The scores indicated below are those of candidates who wrote the NBTs for the 2024 intake cycle. The NBT candidates include both those who wrote as part of their application for tertiary study and those who wrote for placement purposes after admission. This section reports the descriptive statistics for the three NBT scores as well as the frequency tables for the benchmark bands. Table 6 shows the descriptive statistics for the NBT 2024 Intake cohort. The distributions of both the QL and the MAT test scores were positively skewed (see the histograms in Figure 2 and box-and-whisker plots in Figure 1).

3.1.1 Descriptive statistics

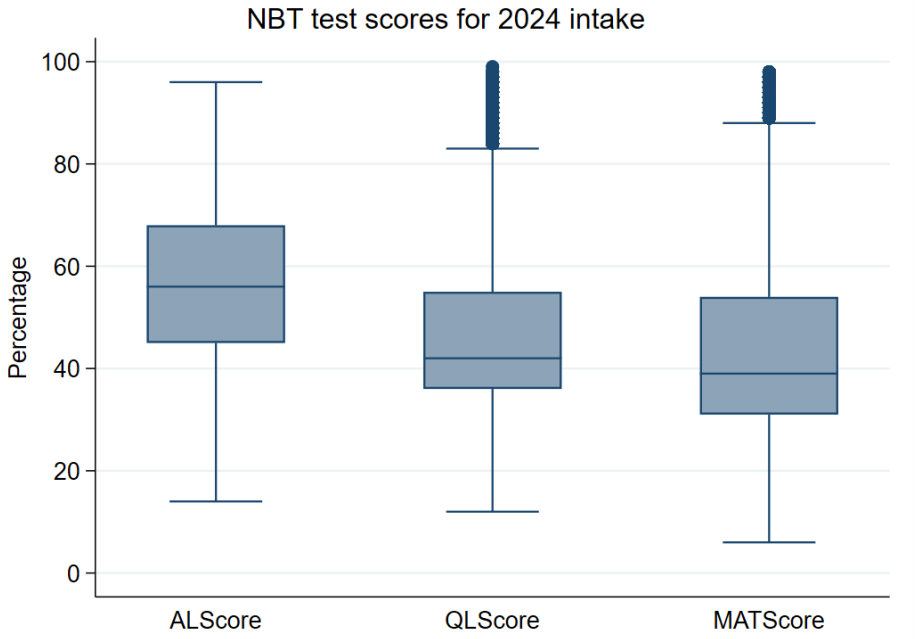

Figure 1: NBT test scores: 2024 intake

Table 6: Descriptive statistics for NBT AL, QL and MAT: 2024 intake

NBT Test	n	Mean	SD	Minimum	1st Quartile	Median	3rd Quartile	Maximum
AL	49 857	56.66	14.07	14	45	56	68	96
QL	49 849	46.78	14.96	12	36	42	55	99
MAT	38 853	44.47	16.70	6	31	39	54	98

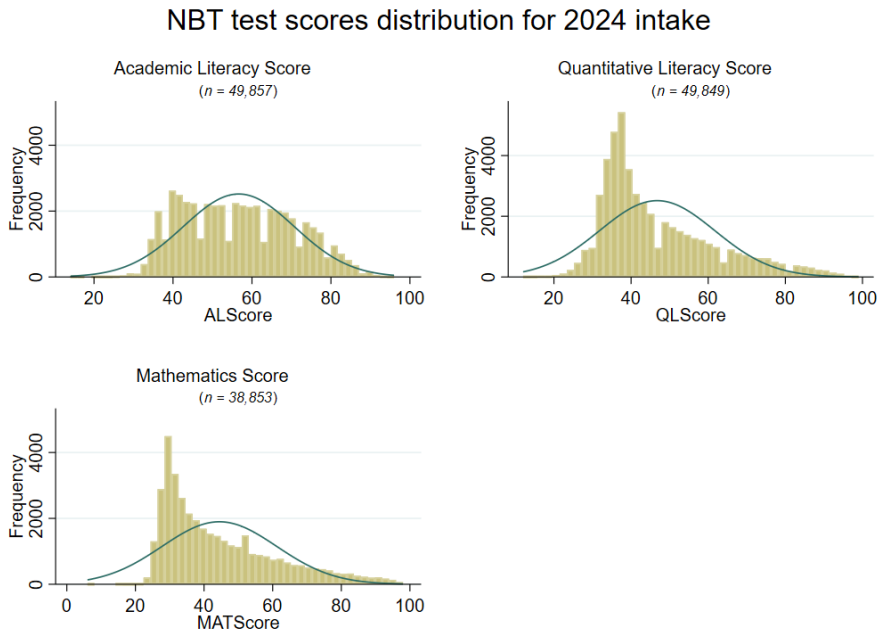

Figure 2: NBT test scores distribution: 2024 intake

3.2 NBT cohort by performance levels: 2024 intake

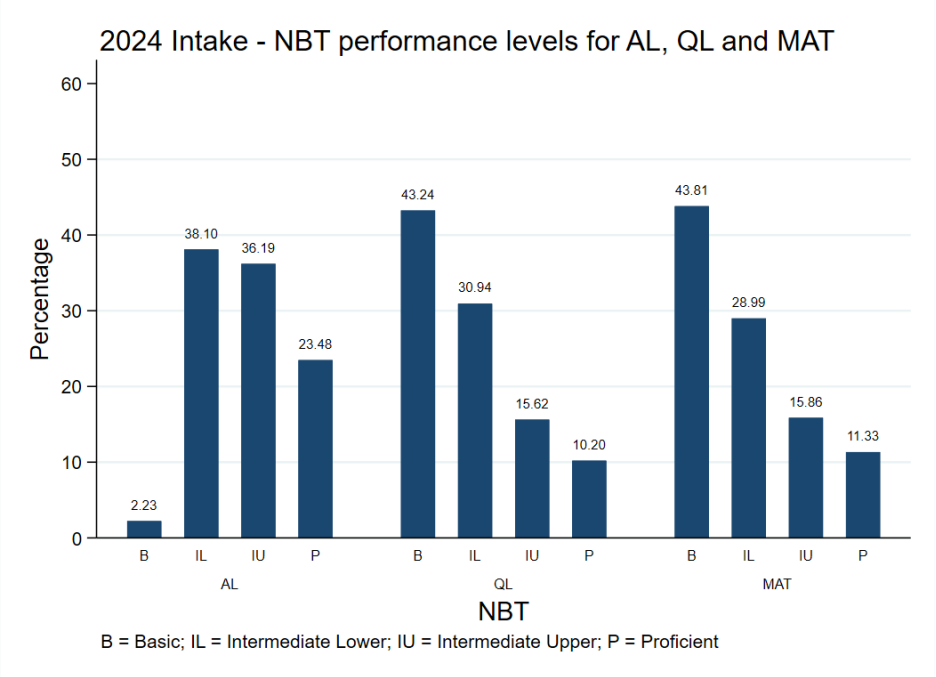

Figure 3: NBT performance levels for AL, QL and MAT: 2024 intake

Table 7: NBT benchmark levels, performance distribution: 2024 intake

NBT tests	Basic	Intermediate Lower	Intermediate Upper	Proficient	Total (n)
AL	1 111 (2.23%)	18 994 (38.10%)	18 045 (36.19%)	11 707 (23.48%)	49 857
QL	21 555 (43.24%)	15 422 (30.94%)	7 787 (15.62%)	5 085 (10.20%)	49 849
MAT	17 022 (43.81%)	11 264 (28.99%)	6 164 (15.86%)	4 403 (11.33%)	38 853

3.3 Performance on NBTs by intended faculty

Candidates are asked to indicate their first, second and third choice of faculty to which they have applied or will apply. Only the first choice of intended faculty was used in this analysis. The data is self-reported and might not reflect the actual placement in the university.

3.3.1 AL performance by intended faculty

The AL performance of candidates across all the faculties is presented in Figure 4.

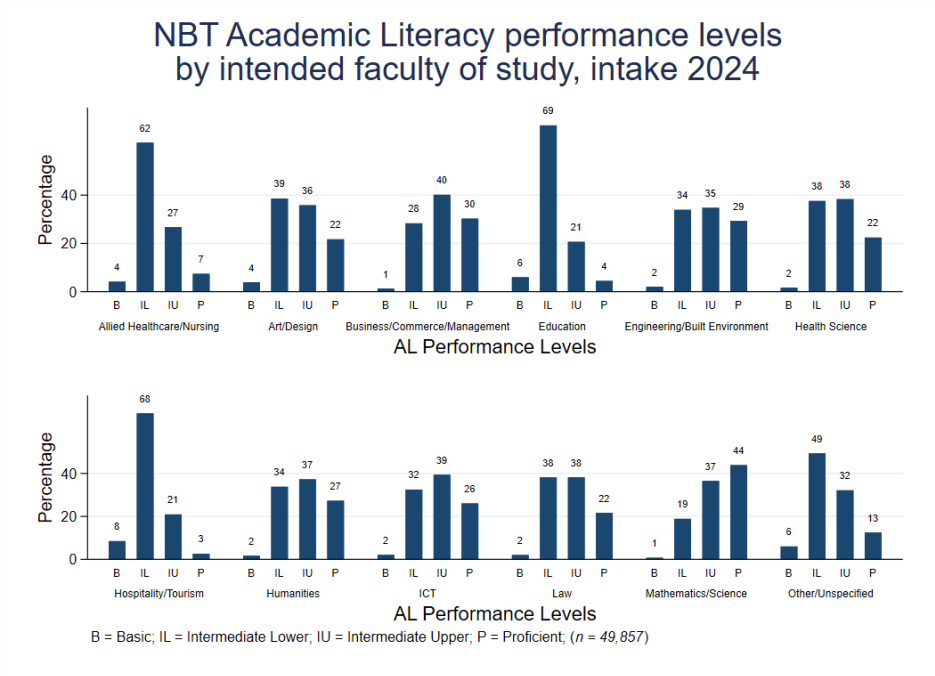

Figure 4: NBT AL performance levels by intended faculty of study: 2024 intake

3.3.2 QL performance by intended faculty

The QL performance of candidates across all the faculties is presented in Figure 5.

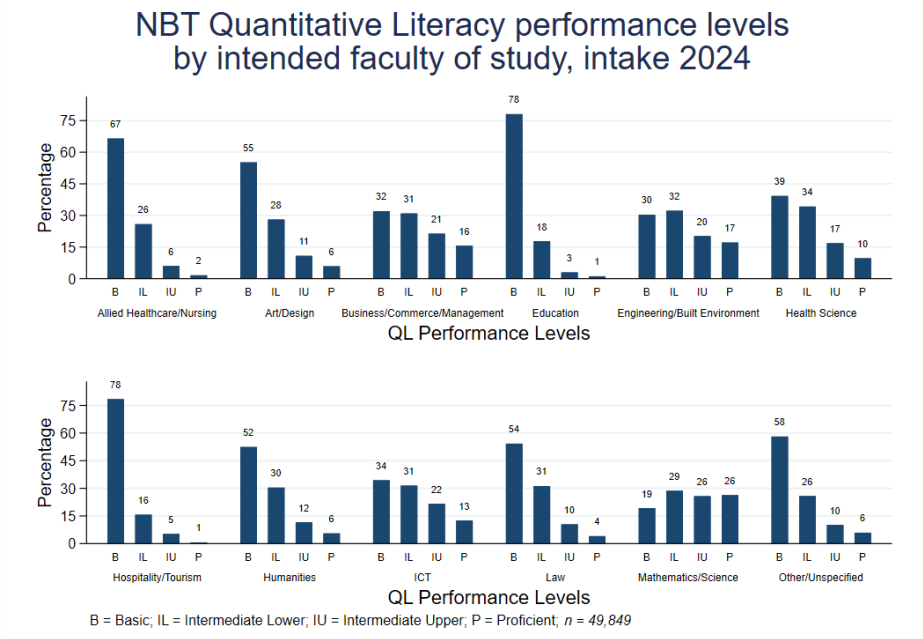

Figure 5: NBT QL performance levels by intended faculty of study: 2024 intake

3.3.3 MAT performance by intended faculty

The performance levels in MAT are presented in Figure 6.

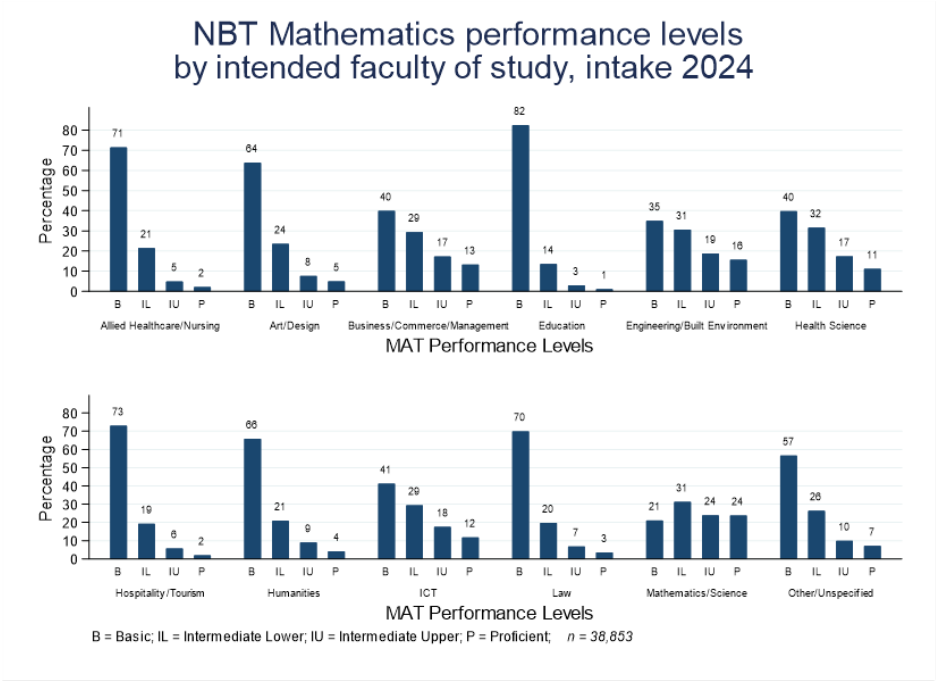

Figure 6: NBT MAT performance levels by intended faculty of study: 2024 intake

3.4 Performance on NBTs by test language

This section reports a comparison in performance by candidates who wrote the NBTs in English and Afrikaans. Table 8 below shows that 47 866 candidates (96.01%) wrote the NBT AL in English, while 47 861 candidates (96.01%) wrote the QL in English. Additionally, 37 366 candidates (96.17%) wrote the NBT MAT in English. In contrast, the number of candidates who wrote the NBTs in Afrikaans is significantly lower than expected: 1 991 candidates (3.99%) wrote the NBT AL, 1 988 candidates (3.99%) wrote the NBT QL, and 1 487 candidates (3.83%) wrote the NBT MAT.

Table 8: NBT Test language: 2024 intake

	Wrote AL		**Wrote QL**		**Wrote MAT**	
AQL/MAT test language	n	%	n	%	n	%
Afrikaans	1 991	3.99	1 988	3.99	1 487	3.83
English	47 866	96.01	47 861	96.01	37 366	96.17
Total	49 857	100	49 849	100	38 853	100

Table 9 presents the descriptive statistics for each NBT test, categorised by test language.

Table 9: Descriptive statistics for NBT AL, QL, and MAT by test language: 2024 intake

NBT Test	Test language	n	Mean, %	SD, %	Min., %	1st Quartile, %	Median, %	3rd Quartile, %	Max., %
AL	Afrikaans	1 991	58.56	12.63	30	49	60	68	90
	English	47 866	56.58	14.12	14	44	56	68	96
	Total	49 857	56.66	14.07	14	45	56	68	96
QL	Afrikaans	1 988	50.44	15.54	17	38	48	61	98
	English	47 861	46.63	14.91	12	36	42	55	99
	Total	49 849	46.78	14.96	12	36	42	55	99
MAT	Afrikaans	1 487	48.61	17.70	22	33	45	62	95
	English	37 366	44.31	16.64	6	31	39	54	98
	Total	38 853	44.47	16.70	6	31	39	54	98

3.4.1 AL performance on tests written in Afrikaans and English

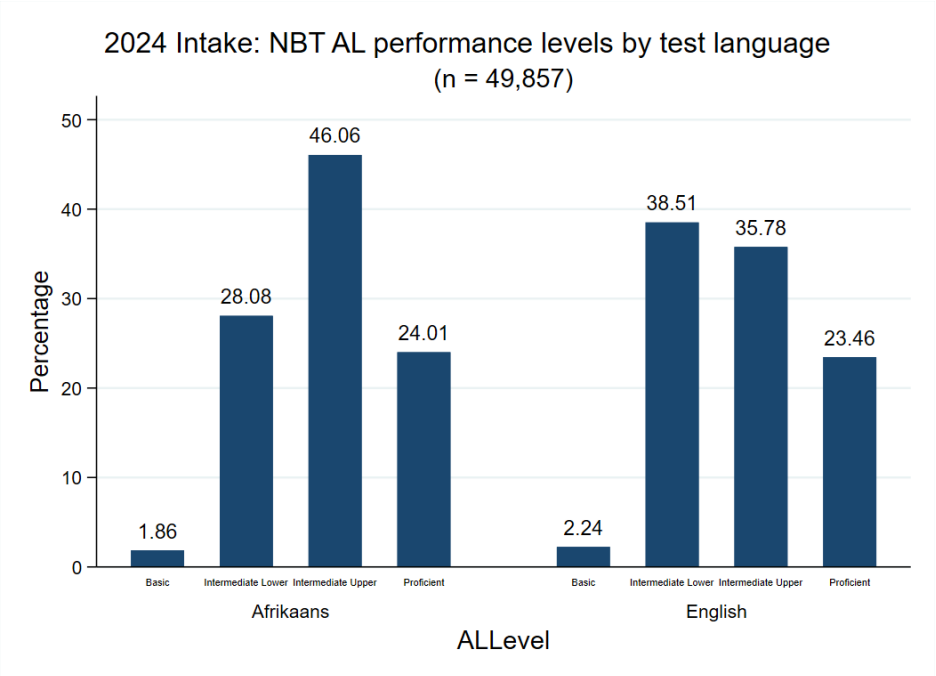

Figure 7: NBT AL performance levels by test language: 2024 intake

3.4.2 QL performance on tests written in Afrikaans and English

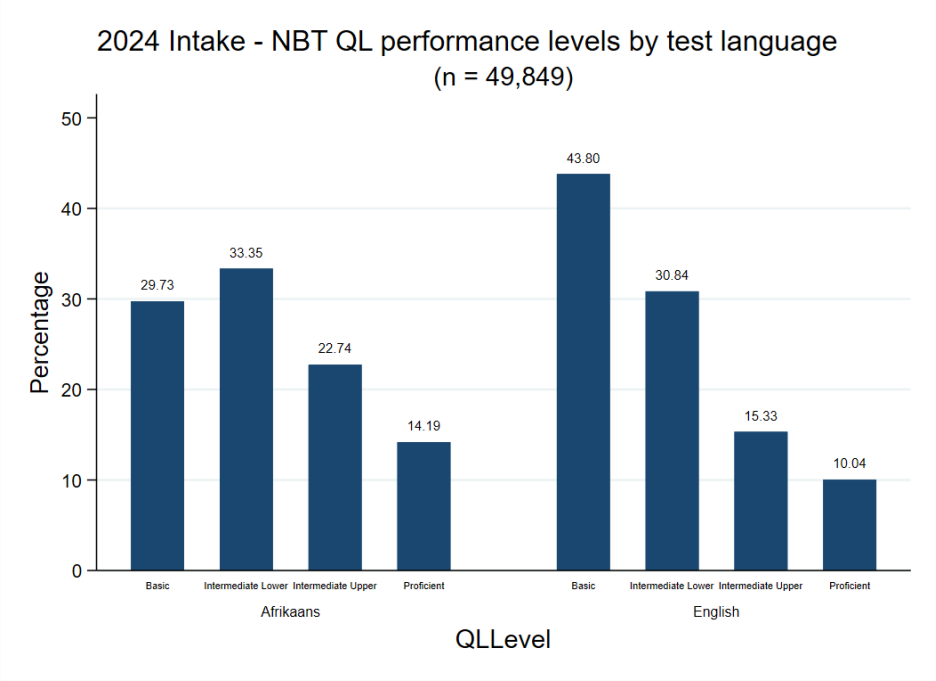

Figure 8: NBT QL performance levels by test language: 2024 intake

3.4.3 MAT performance on tests written in Afrikaans and English

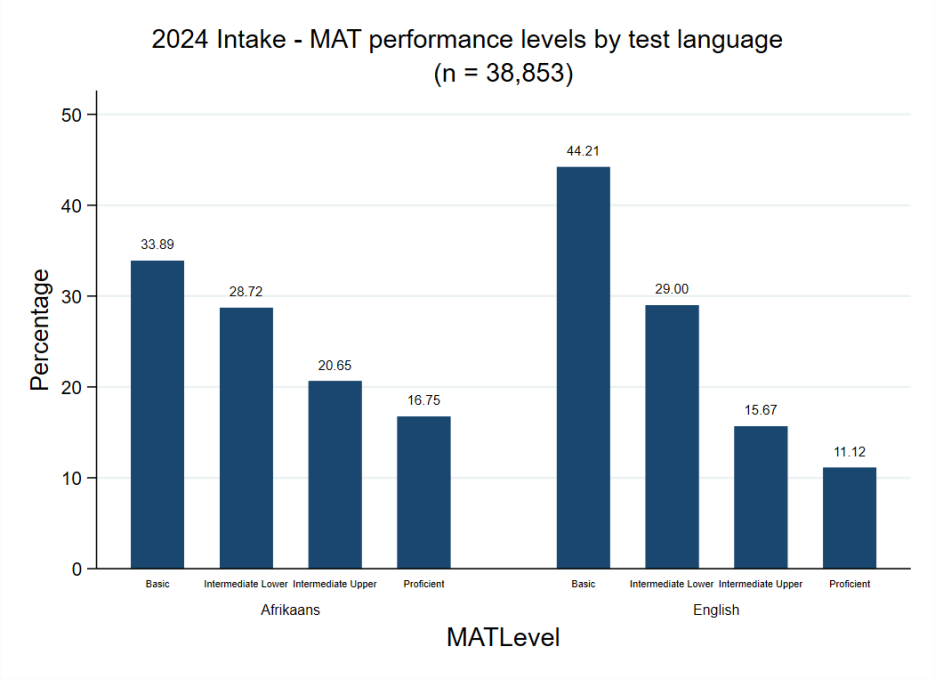

Figure 9: NBT MAT performance levels by test language: 2024 intake

3.5 Performance profile of South African and non-South African candidates

Table 10: Number of NBT test writers, SA citizens vs non-SA citizens: 2024 intake

	Wrote AL		Wrote QL		Wrote MAT	
	n	%	n	%	n	%
South African	46 584	93.44	46 577	93.44	36 351	93.56
Non-South African	2 297	4.61	2 296	4.61	1 801	4.64
Unspecified	976	1.96	976	1.96	701	1.80
Total	49 857	100	49 849	100	38 853	100

Table 11: NBT Scores, SA citizens vs non-SA citizens: 2024 intake

NBT Test	Citizenship	n	Mean, %	SD, %	Min., %	1st Quartile, %	Median, %	3rd Quartile, %	Max., %
AL	South African	46 584	56.41	14.06	14	44	56	67	96
	Non-South African	2 297	62.05	12.98	27	53	63	72	93
	Unspecified	976	55.81	14.66	29	42	55	68	92
	Total	49 857	56.66	14.07	14	45	56	68	96
QL	South African	46 577	46.60	14.88	12	36	42	55	99
	Non-South African	2 296	50.83	15.79	20	38	48	62	96
	Unspecified	976	45.69	15.09	26	35	40	52.5	96
	Total	49 849	46.78	14.96	12	36	42	55	99
MAT	South African	36 351	44.28	16.61	6	31	39	54	98
	Non-South African	1 801	48.29	18.09	24	32	44	61	97
	Unspecified	701	44.41	16.46	23	31	39	55	97
	Total	38 853	44.47	16.70	6	31	39	54	98

3.5.1 AL performance by citizenship

A higher proportion of the non-South African candidates (34.39%) scored in the Proficient band compared to the South African candidates (22.94%) and those with unspecified citizenship (23.77%). Also, South African candidates had a slightly higher proportion of score (2.24%) in the Basic band compared to the non-South African candidates (1.31%) while the group with unspecified citizenship had the highest proportion in the Basic band (3.79%). For the Intermediate bands (Intermediate Upper and Lower), most of the scores for each category fell within these two groups; 74.82% of South African candidates' scores, 64,31% of the non-South African candidates' scores, and 72.44% of the unspecified candidates' scores, respectively (Figure 10). These percentages should be interpreted with consideration of the varying sample sizes.

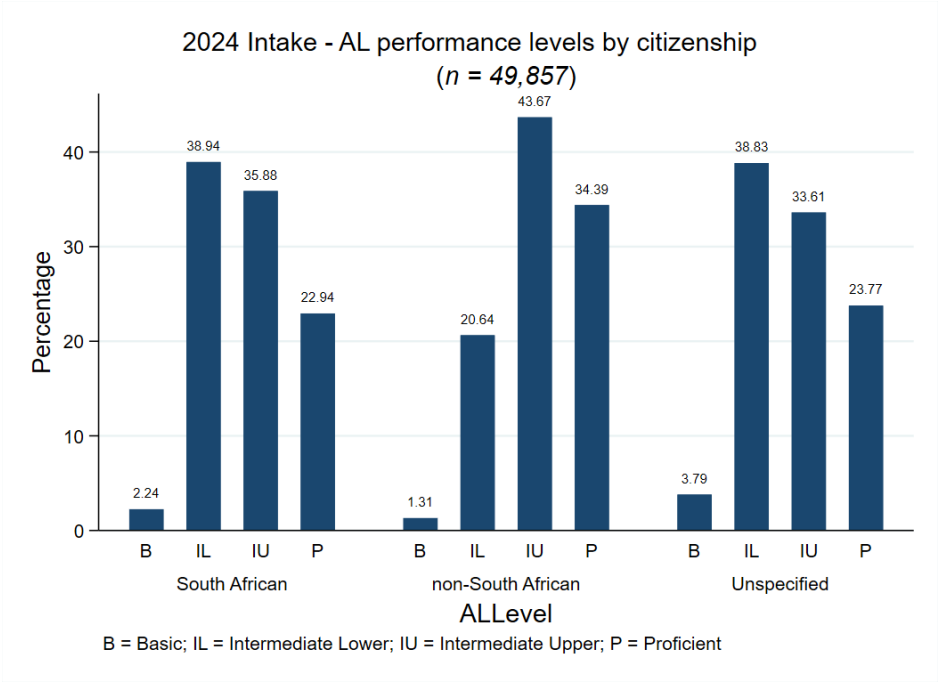

Figure 10: NBT AL performance levels by citizenship: 2024 intake

5.5.2 QL performance by citizenship

Figure 11 shows the performance of Non-South African and South African candidates in QL. Non-South African candidates had a higher proportion of scores in the Proficient band, with 14.59%, compared to 9.98% for South African candidates. In the Basic band, 43.74% of South African candidates, 30.40% of non-South African candidates, and 49.59% of candidates with unspecified citizenship scored in this category. These results suggest that both groups may need additional QL support.

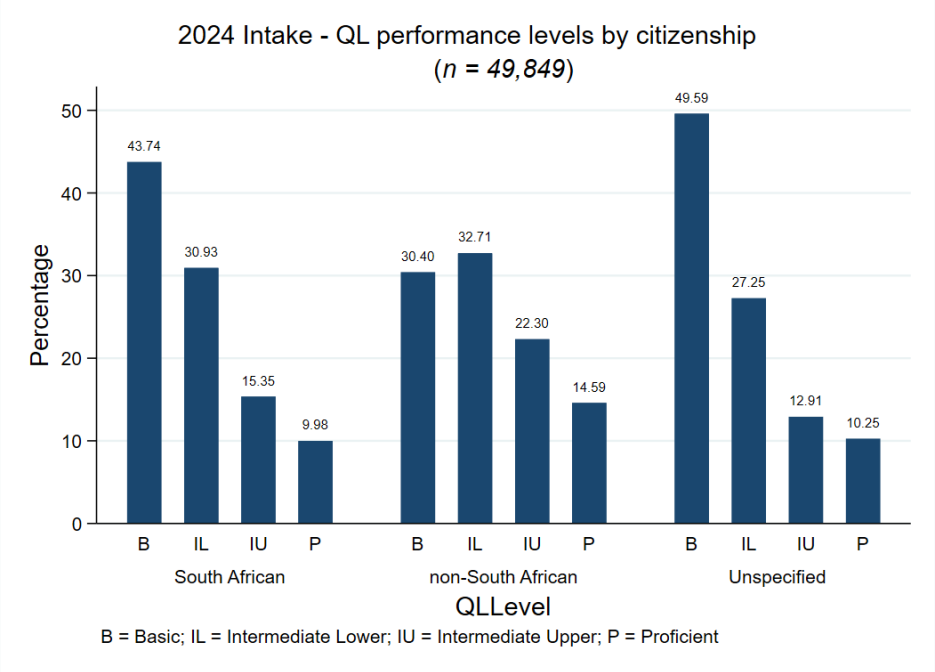

Figure 11: NBT QL performance levels by citizenship: 2024 intake

5.5.3 MAT performance by citizenship

Figure 12 presents the performance of Non-South African and South African candidates in MAT. Non-South African candidates had a higher proportion of scores in the Proficient band, with 17.38%, compared

to 11.05% for South African candidates. In the Basic and Intermediate Lower bands, over 70% of scores across all categories fell within these bands. These results suggest that all groups may require additional MAT support.

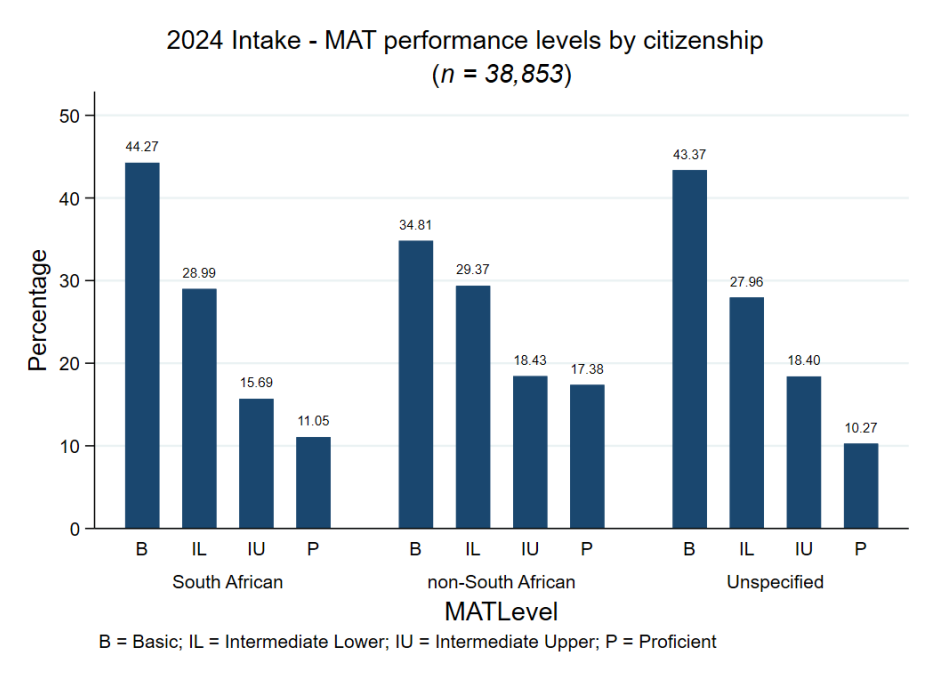

Figure 12: NBT MAT performance levels by citizenship: 2024 intake

3.6 Performance on NBTs at subdomain level

3.6.1 The construct of the AL test

AL1 - Cohesion
: The ability to identify and use anaphoric and cataphoric links and other mechanisms that connect parts of a text.

AL2 – Communicative function
: The ability to identify and understand the function of different parts of sentences/ discourse.

AL3 – Discourse relations
: The ability to understand the structure and organisation of discourse and argument.

AL4 – Distinction making (Essential/non-essential)
: The ability to make distinctions, classify, categorise and compare, such as unpacking cause and effect relationships or sorting facts from opinions.

AL5 – Grammar / Syntax
: The ability to understand and analyse the grammatical and syntax structures in academic language, and to know how this affects meaning and interpretation.

AL6 – Inferencing
: The ability to draw conclusions and apply insights, either on the basis of what has been stated directly in texts or on what is implied in these texts.

AL7 – Metaphorical expressions
: The ability to understand and use non-literal language use such as metaphor, wordplay, or language connotation.

AL8 – Text genre
: The ability to perceive the "audience" in a text, the purpose of writing, or understanding the appropriate use of register and tone.

AL9 – Vocabulary
: The ability to derive the meaning of words and terms from the context.

Table 12 provides a detailed summary of the distribution for each AL subdomain.

Table 12: The performance distribution on the NBT AL subdomains: 2024 intake

Skill Assessed	n	Mean, %	SD, %	Min., %	1st Quartile, %	Median, %	3rd Quartile, %	Max., %
Cohesion (AL1)	49 857	67.44	21.29	0	56	71	86	100
Communicative function (AL2)	49 857	58.10	20.08	0	44	60	70	100
Discourse relations (AL3)	49 857	60.61	22.89	0	44	67	78	100
Essential/ non-essential (AL4)	49 857	56.52	19.27	0	42	58	71	100
Grammar/ syntax (AL5)	49 857	59.84	29.56	0	33	67	75	100
Inferencing (AL6)	49 857	53.61	19.09	0	38	54	69	100
Metaphorical expression (AL7)	49 857	52.93	23.70	0	33	50	70	100
Text genre (AL8)	49 857	45.77	24.93	0	25	50	60	100
Vocabulary (AL9)	49 857	51.23	20.66	0	33	50	67	100

Table 13: NBT AL subdomains median (p50) performance indicator per faculty: 2024 intake

Faculty	AL1	AL2	AL3	AL4	AL5	AL6	AL7	AL8	AL9
Allied Healthcare/Nursing	60	50	50	50	50	45	40	40	43
Art/Design	67	58	57	57	60	53	50	50	50
Business/Commerce/ Management	71	62	67	58	67	60	60	50	57
Education	56	45	50	43	50	40	40	40	43
Engineering/Built Environment	71	60	67	58	67	57	56	50	57
Health Science	71	60	67	58	67	54	50	50	50
Hospitality/Tourism	56	50	44	42	33	38	33	33	43
Humanities	67	60	67	58	67	54	56	50	57
ICT	71	60	67	58	67	56	60	50	57
Law	67	60	67	58	60	54	56	50	50
Mathematics/Science	75	67	71	67	75	64	67	50	57
Other/Unspecified	62	55	50	50	50	47	44	40	43
Total	71	60	67	58	67	54	50	50	50

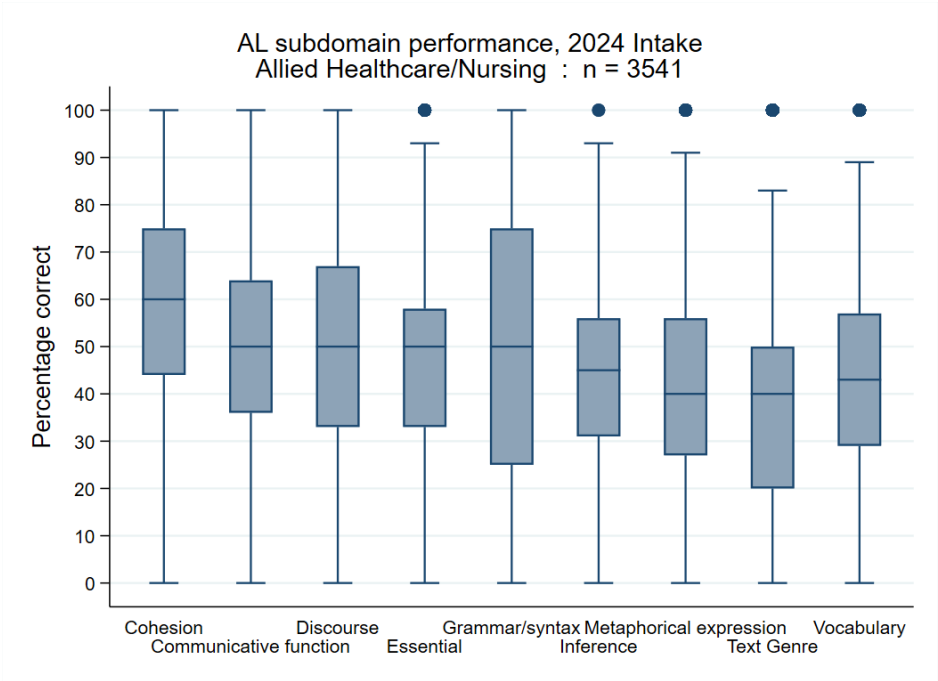

Figure 13: Allied Healthcare/Nursing AL subdomain performance: 2024 intake

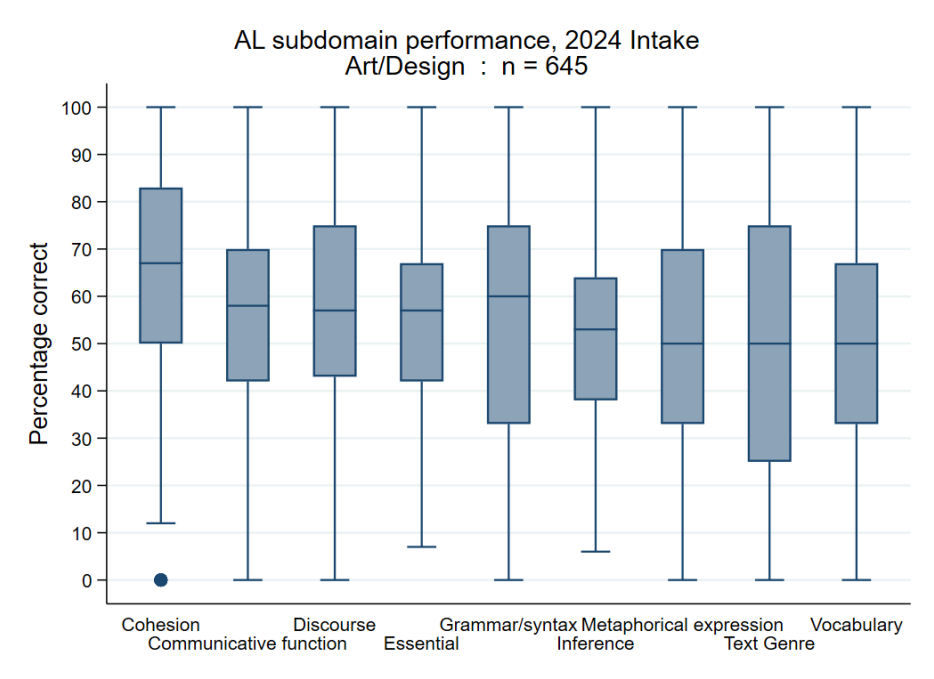

Figure 14: Art and Design AL subdomain performance: 2024 intake

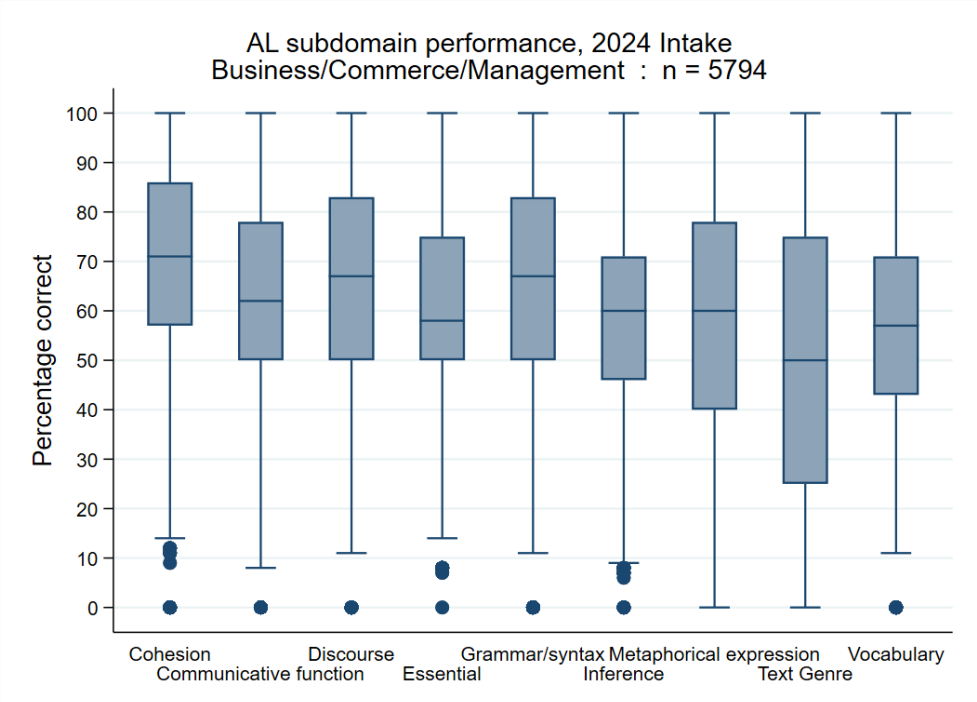

Figure 15: Business/Commerce/Management AL subdomain performance: 2024 intake

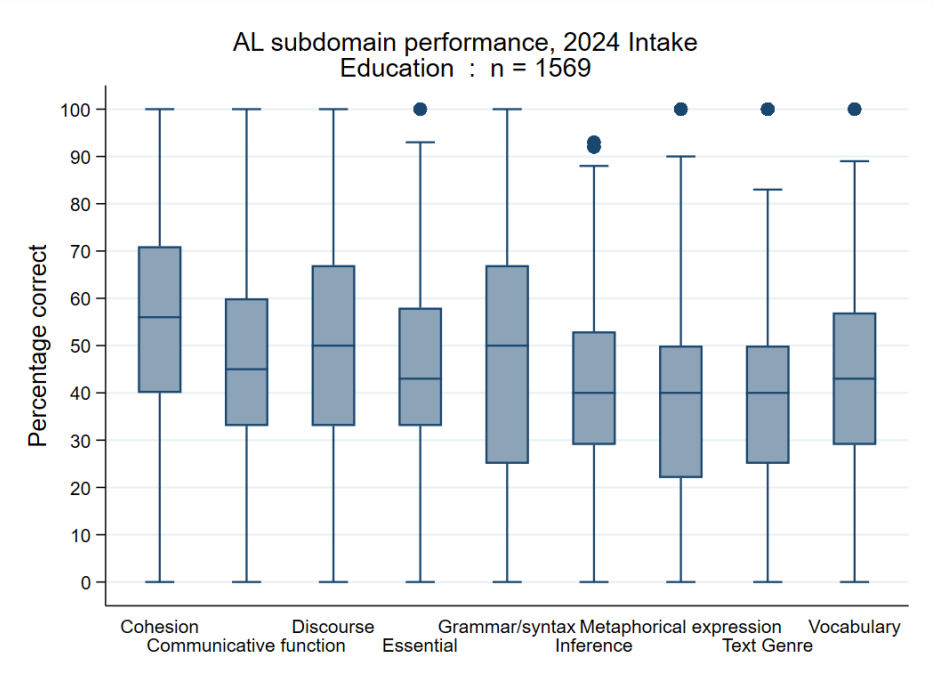

Figure 16: Education AL subdomain performance: 2024 intake

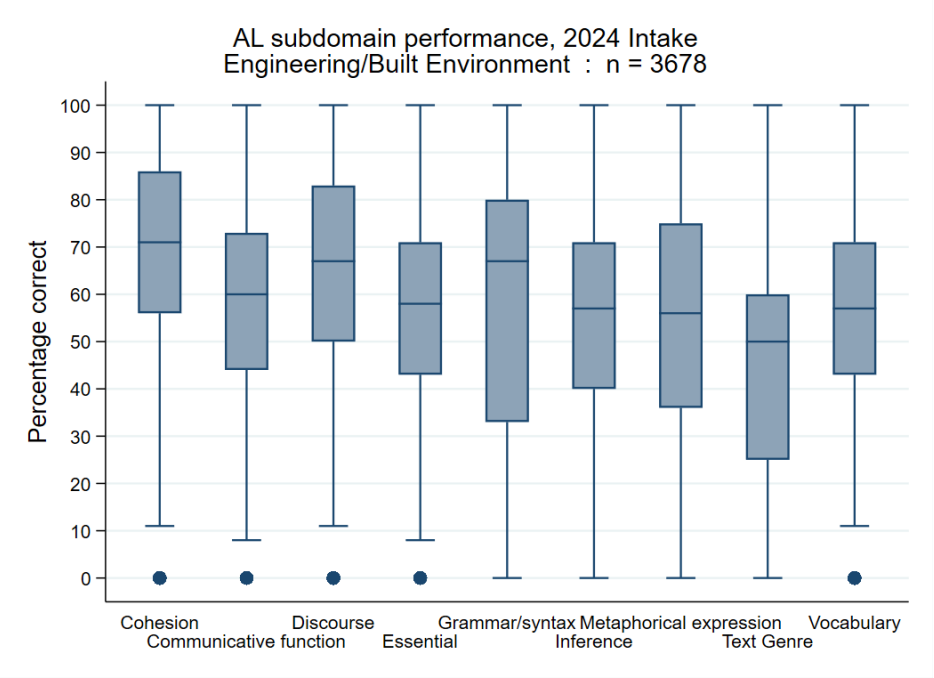

Figure 17: Engineering/Built Environment AL subdomain performance: 2024 intake

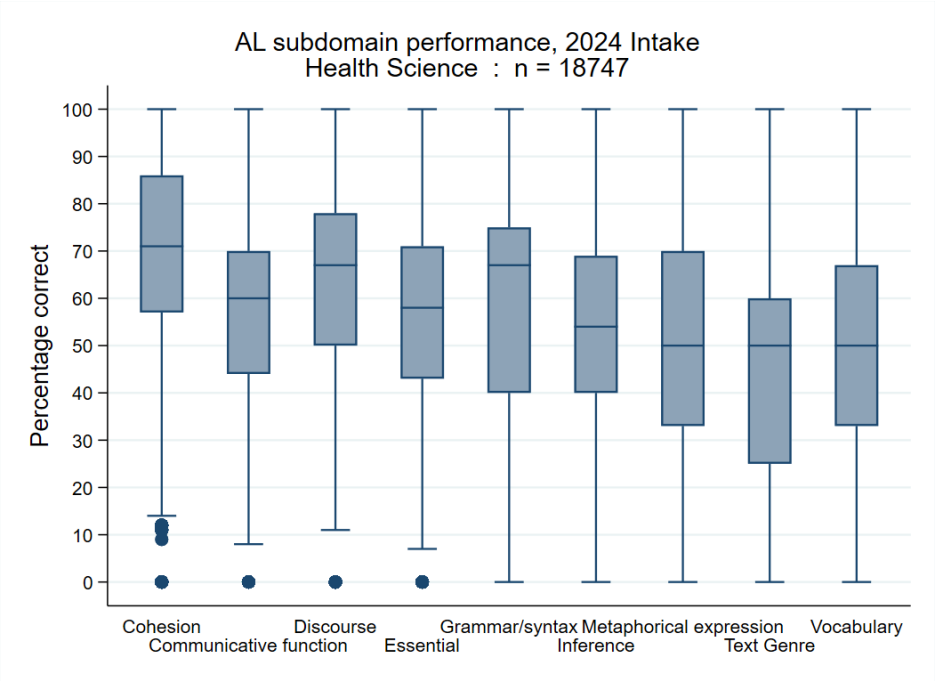

Figure 18: Health Sciences AL subdomain performance: 2024 intake

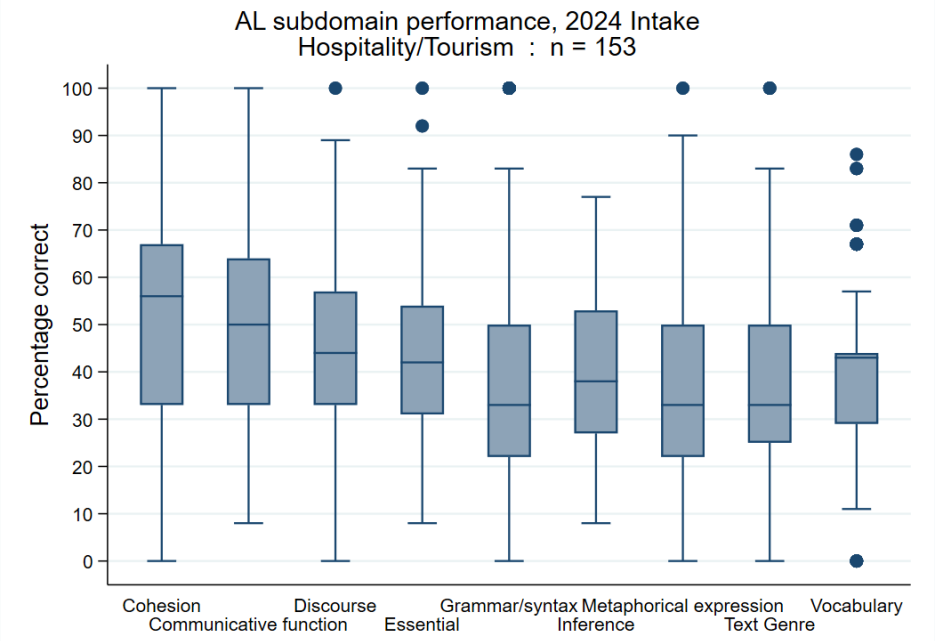

Figure 19: Hospitality/Tourism AL subdomain performance: 2024 intake

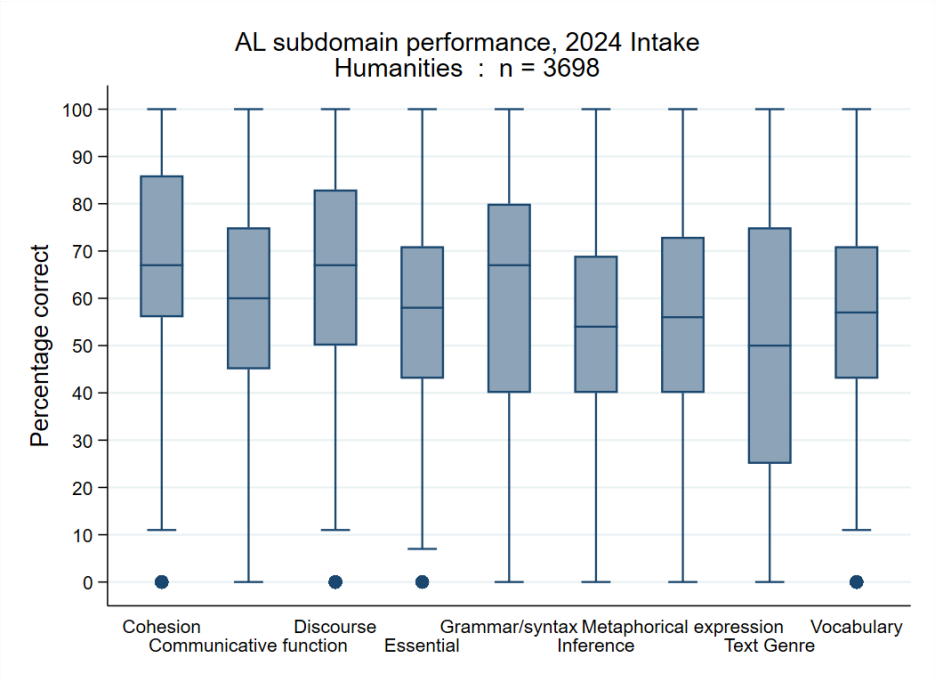

Figure 20: Humanities AL subdomain performance: 2024 intake

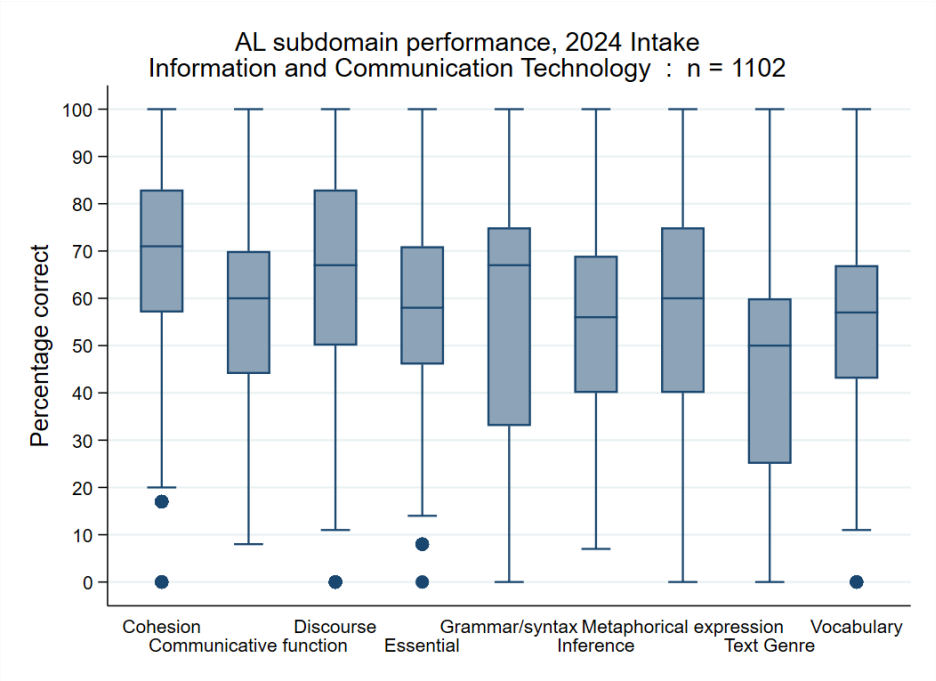

Figure 21: Information and Communication Technology AL subdomain performance: 2024 intake

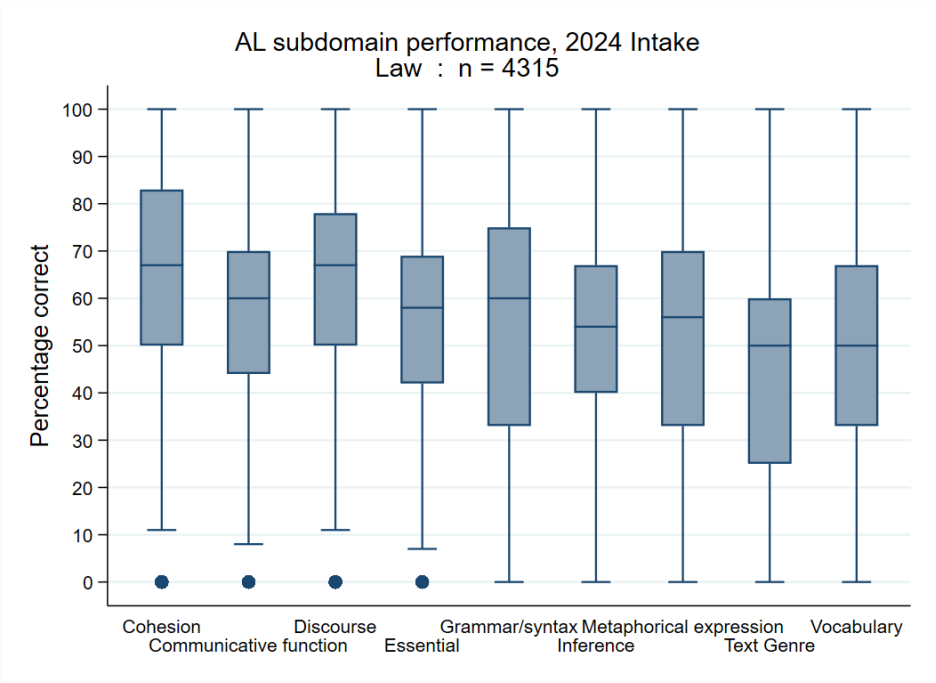

Figure 22: Law AL subdomain performance: 2024 intake

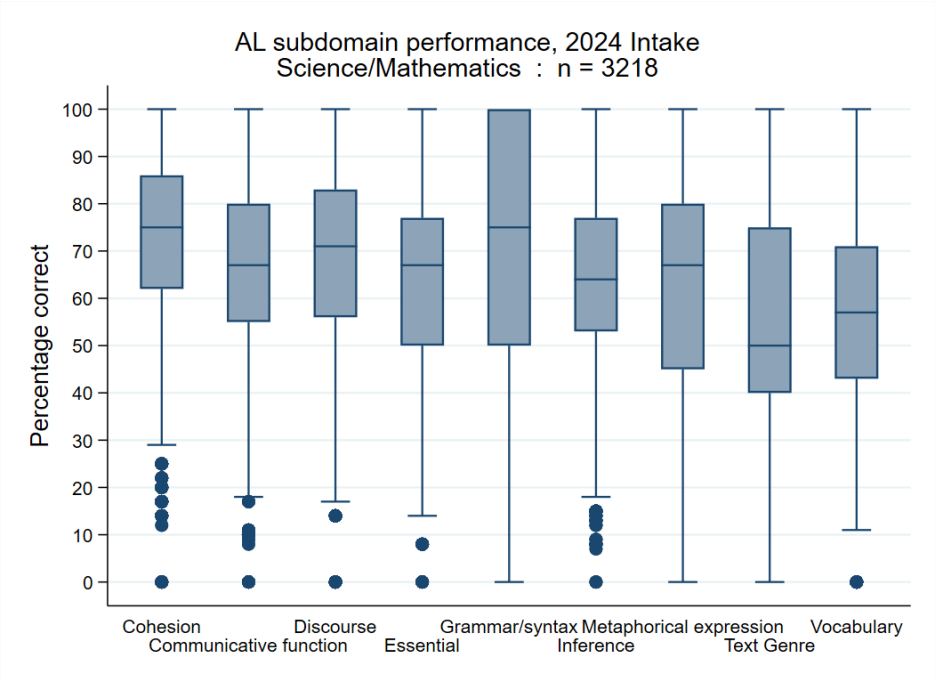

Figure 23: Science/Mathematics AL subdomain performance: 2024 intake

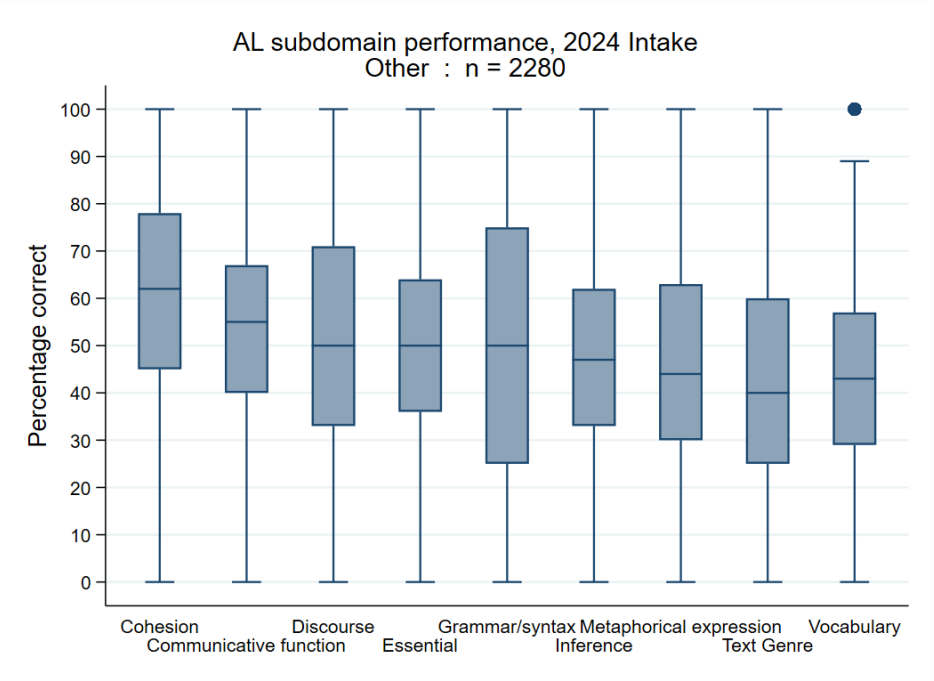

Figure 24: Other AL subdomain performance: 2024 intake

3.6.2 The construct of the QL test

NBT QL subdomains

QL1/QLC - Change and rates
: Involves distinguishing between absolute and relative changes, quantifying and reasoning about changes, calculating average rates of change, and interpreting graph curvature in terms of rate changes.

QL2/QLD - Data representation and analysis
: Includes deriving and using information from contextualised data representations, interpreting various charts and diagrams, and representing data in simple tables and charts.

QL3/QLP - Chance and uncertainty
: Entails understanding and quantifying the probability of uncertain events using empirical data and representing probability as a number between 0 and 1.

QL4/QLQ - Quantity, number and operations
: Involves ordering quantities, performing calculations, expressing numbers in alternative forms, interpreting ratios, and working with numerical representations in various contexts.

QL5/QLR - Relationships, pattern and permutation
: Focuses on recognising, interpreting, and representing relationships and patterns through graphs, tables, words, symbols, and manipulating simple algebraic expressions.

QL6/QLS - Shape, dimension and space
: Encompasses understanding measurement conventions for 2D and 3D objects, and performing calculations for areas, perimeters, and volumes of simple shapes.

Table 14: The performance distribution on the NBT QL subdomains: 2024 intake

Skill Assessed	n	Mean, %	SD, %	Min., %	1st Quartile, %	Median, %	3rd Quartile, %	Max., %
Change and rates (QL1)	49 849	35.26	26.92	0	25	25	50	100
Data representation and analysis (QL2)	49 849	47.71	19.51	0	31	44	62	100
Chance and uncertainty (QL3)	49 849	50.17	31.80	0	33	33	67	100
Quantity, number and operations (QL4)	49 849	45.06	21.69	0	25	42	58	100
Relationships, pattern and permutation (QL5)	49 849	46.55	23.28	0	29	43	57	100
Shape, dimension and space (QL6)	49 849	50.52	22.19	0	38	50	62	100

Table 15: NBT QL subdomains median (p50) performance indicator per faculty: 2024 intake

Faculty	QL1	QL2	QL3	QL4	QL5	QL6
Allied Healthcare/Nursing	25	38	33	33	43	38
Art/Design	25	44	33	42	43	50
Business/Commerce/Management	50	50	67	50	57	50
Education	25	38	33	33	29	38
Engineering/Built Environment	50	50	67	50	57	62
Health Science	25	50	67	42	43	50
Hospitality/Tourism	25	31	33	25	29	38
Humanities	25	44	33	42	43	50
ICT	50	50	67	50	43	50
Law	25	44	33	42	43	38
Mathematics/Science	50	56	67	58	57	62
Other/Unspecified	25	44	33	33	43	43
Total	25	44	33	42	43	50

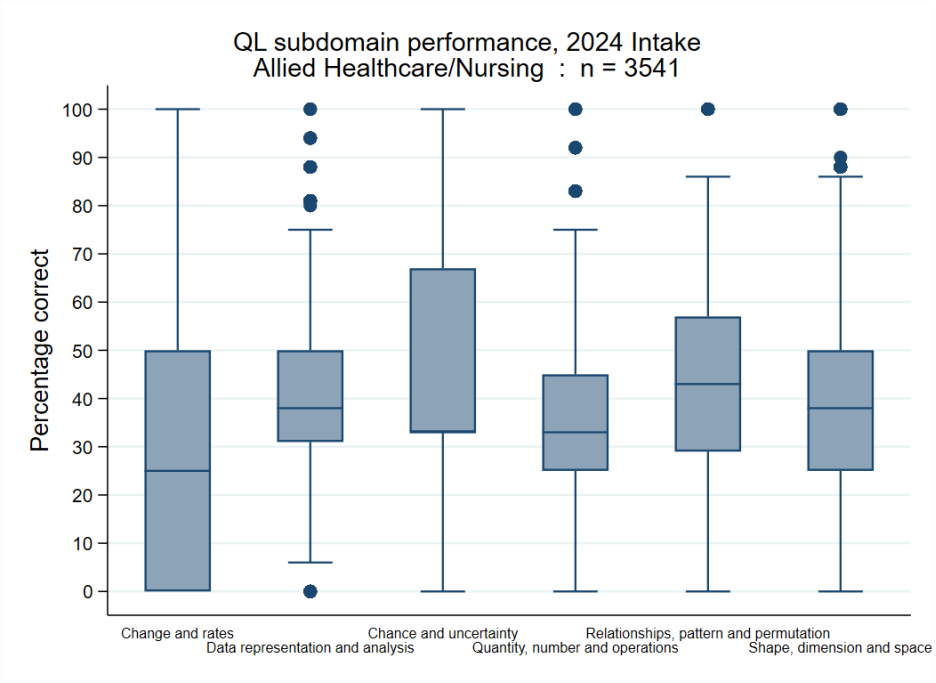

Figure 25: Allied Healthcare/Nursing QL subdomain performance: 2024 intake

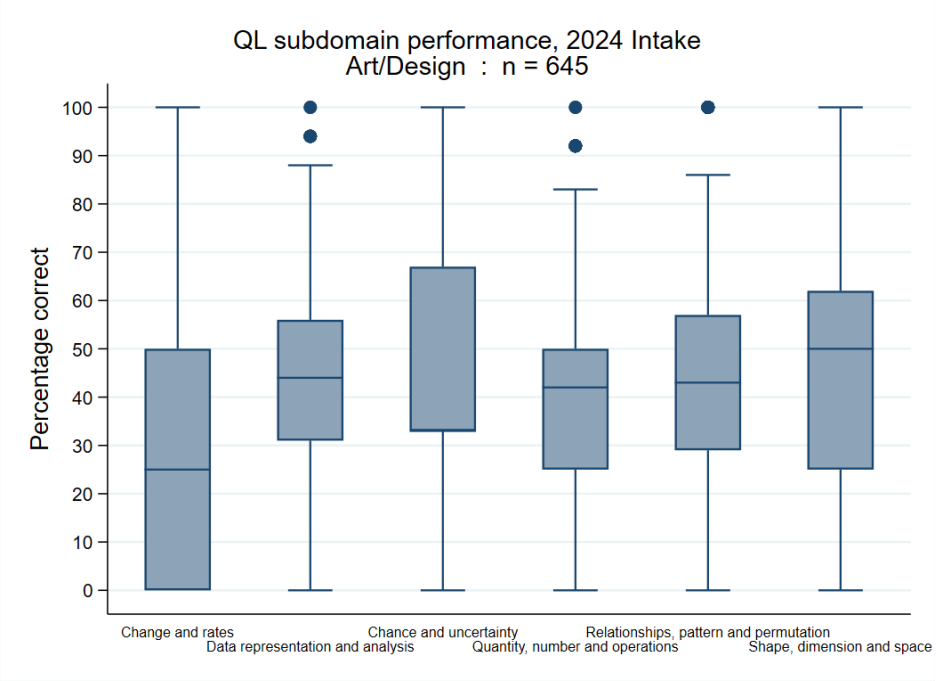

Figure 26: Art/Design QL subdomain performance: 2024 intake

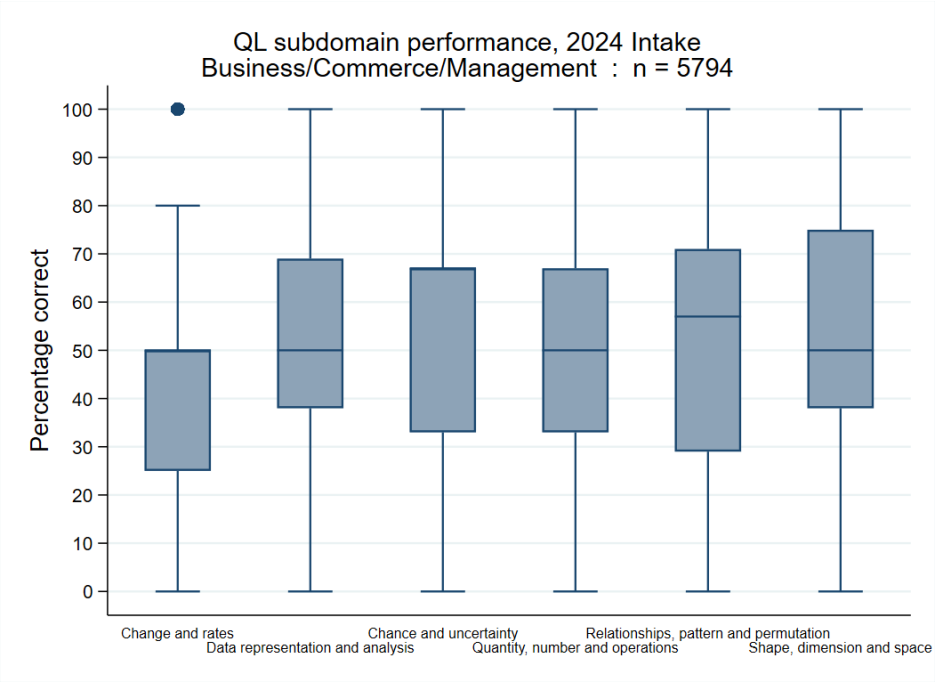

Figure 27: Business/Commerce/Management QL subdomain performance: 2024 intake

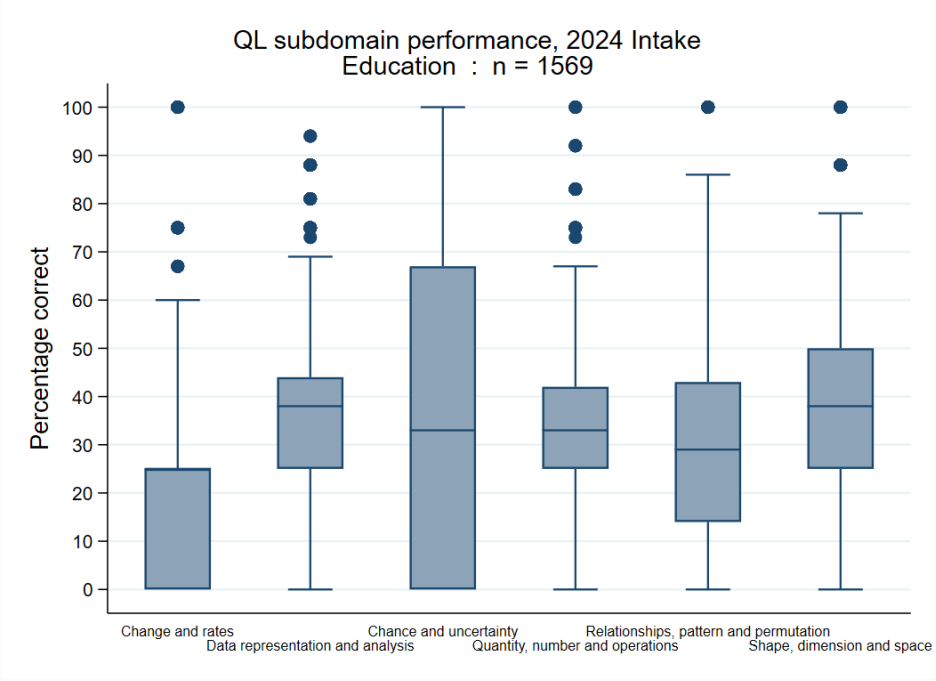

Figure 28: Education QL subdomain performance: 2024 intake

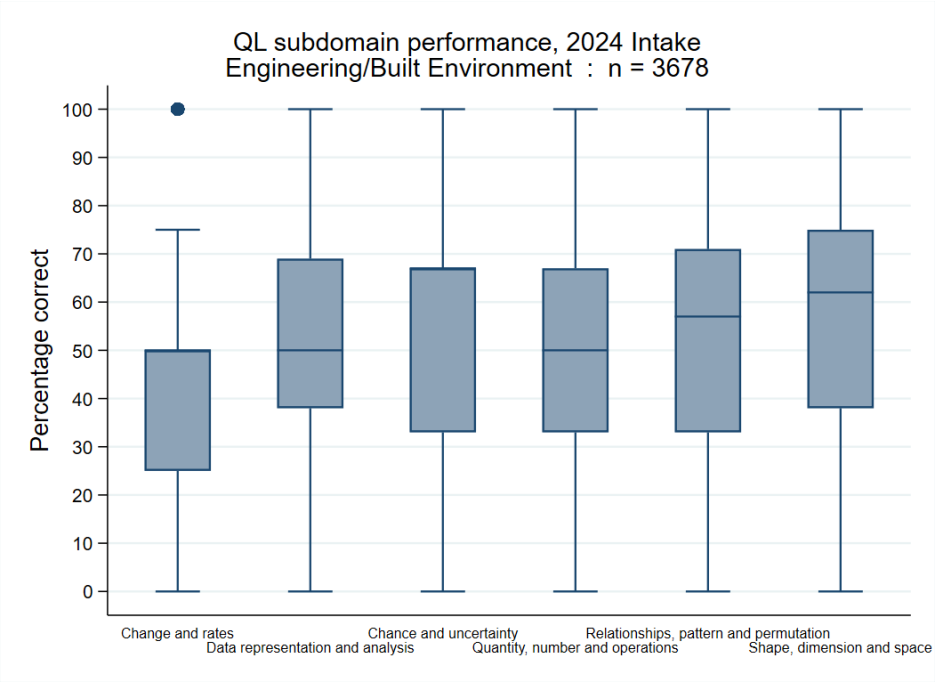

Figure 29: Engineering/Built Environment QL subdomain performance: 2024 intake

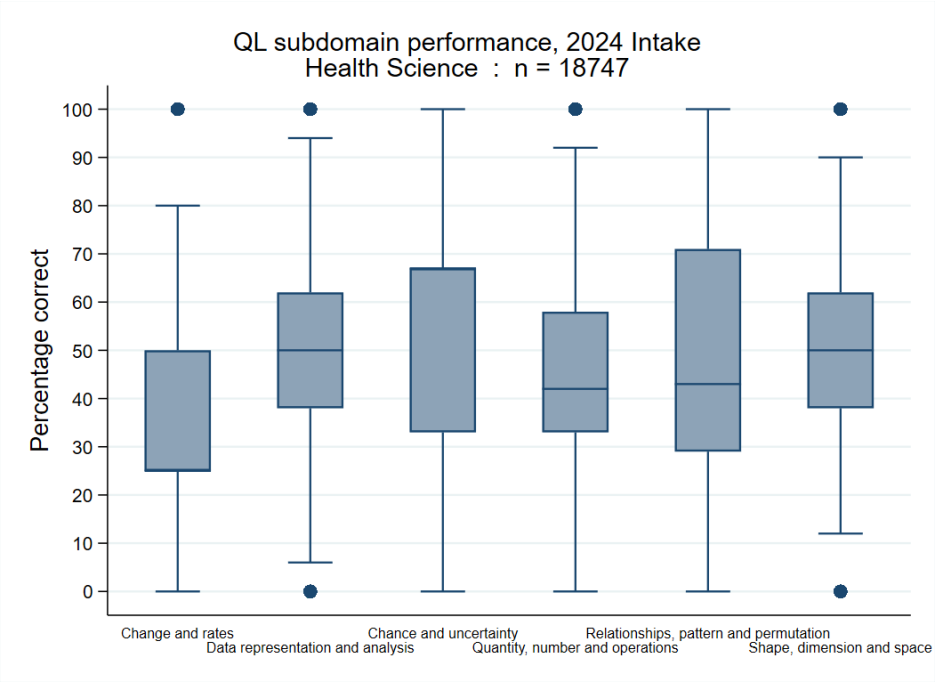

Figure 30: Health Sciences QL subdomain performance: 2024 intake

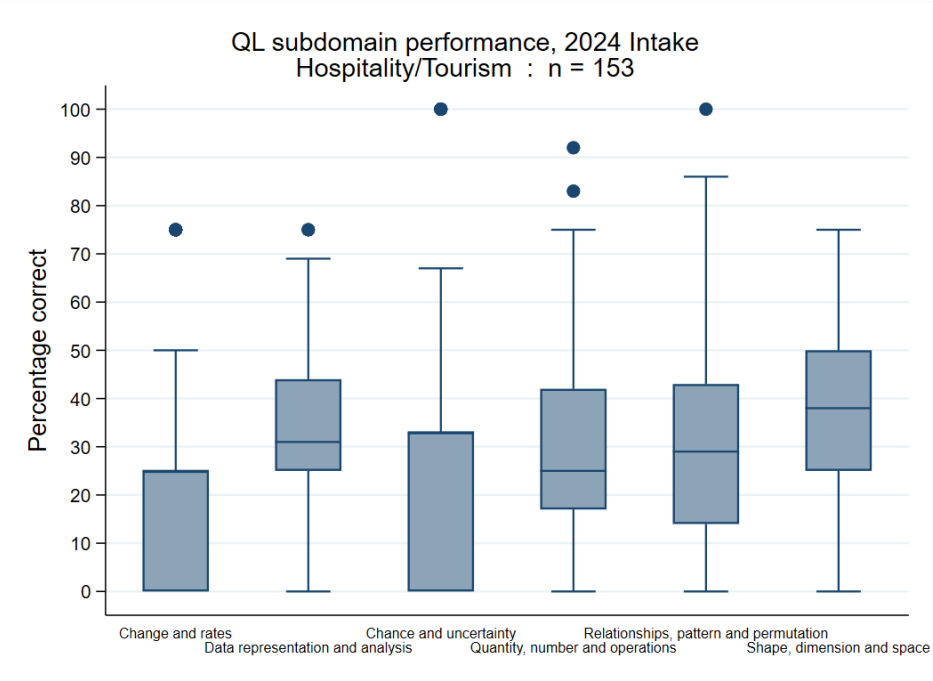

Figure 31: Hospitality/Tourism QL subdomain performance: 2024 intake

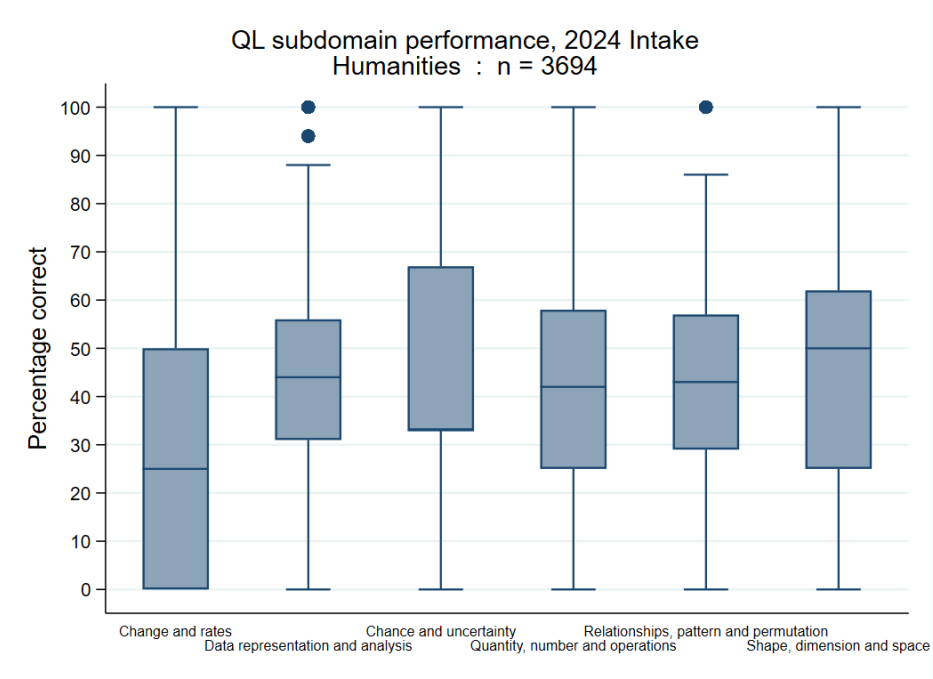

Figure 32: Humanities QL subdomain performance: 2024 intake

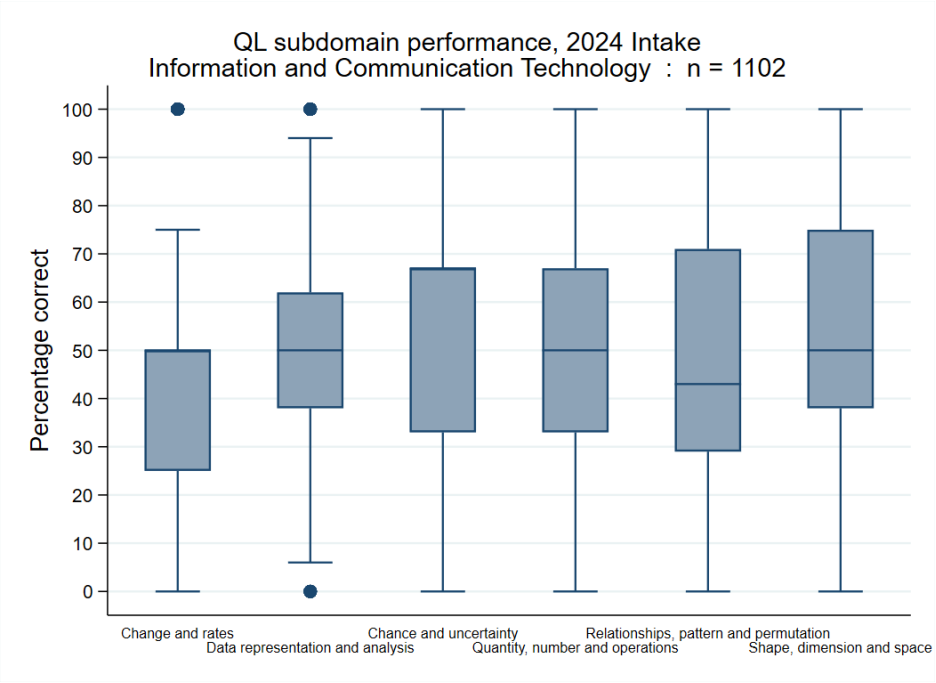

Figure 33: Information and Communication Technology QL subdomain performance: 2024 intake

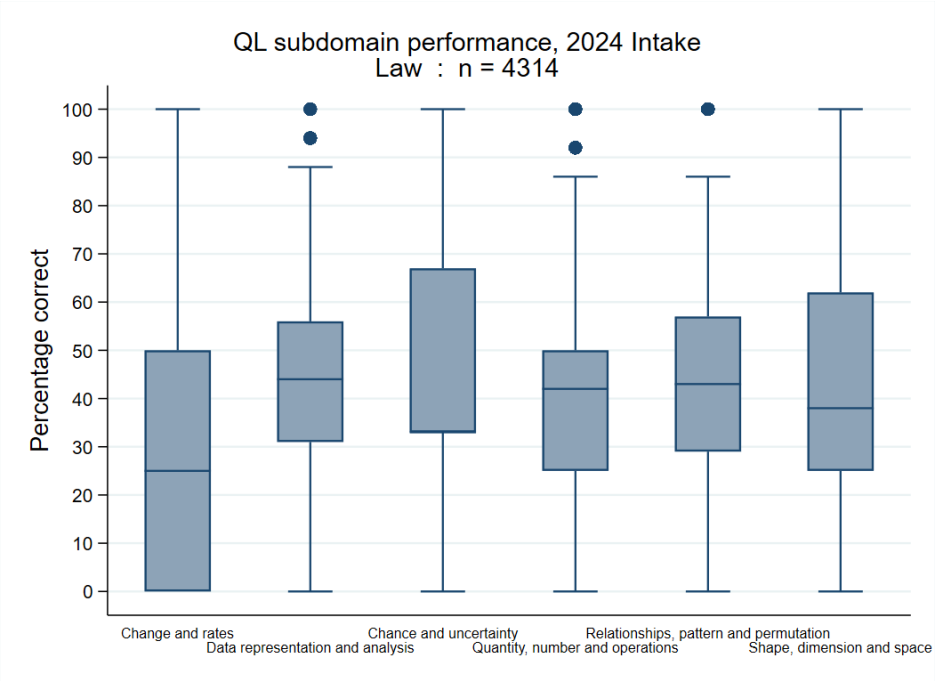

Figure 34: Law QL subdomain performance: 2024 intake

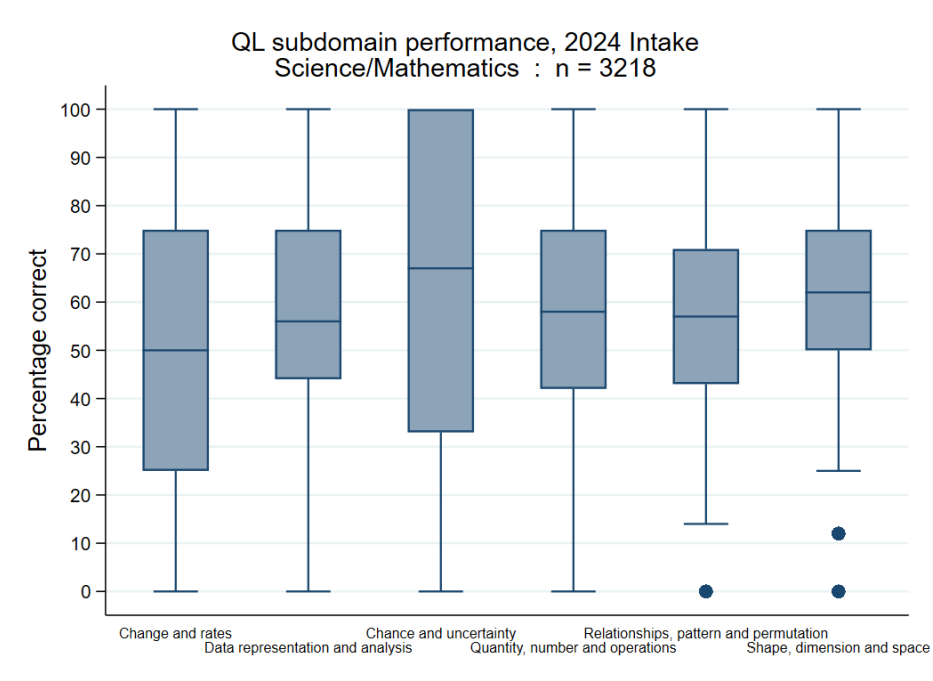

Figure 35: Science/Mathematics QL subdomain performance: 2024 intake

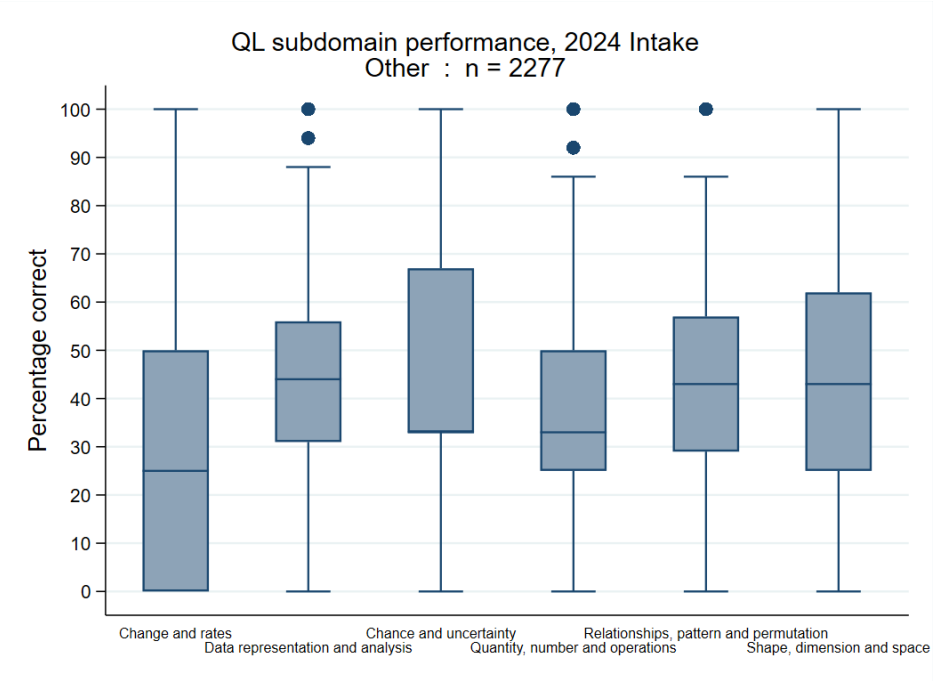

Figure 36: Other QL subdomain performance: 2024 intake

3.6.3 The construct of the MAT test

MAT subdomains: MAT M1 – MAT M5

MAT M1 - Algebraic processing
: Involves recognising and manipulating patterns, sequences, and algebraic expressions, solving exponential equations, and interpreting measurement-related problems.

MAT M2 - Number sense
: Encompasses operations with various types of numbers, understanding number systems, and performing financial and probability calculations without the need for calculators.

MAT M3 - Functions and graphs
: Focuses on understanding and analysing functions and their properties, interpreting and solving related graph problems, and applying principles of differential calculus.

MAT M4 - Trigonometric functions and graphs
: Involves solving trigonometric equations, understanding trigonometric identities, and applying trigonometric concepts to two- and three-dimensional problems.

MAT M5 - Geometric reasoning
: Includes understanding properties of shapes, calculating perimeter, area, and volume, and linking geometric properties with algebraic concepts.

Table 16: The performance distribution on the NBT MAT subdomains: 2024 intake

Skill Assessed	**n**	**Mean, %**	**SD, %**	**Min., %**	**1st Quartile, %**	**Median, %**	**3rd Quartile, %**	**Max., %**
Algebraic processing (MAT M1)	38 853	47.14	22.39	0	31	46	62	100
Number sense (MAT M2)	38 853	36.31	27.46	0	20	25	50	100
Functions and graphs (MAT M3)	38 853	47.55	23.12	0	31	46	67	100
Trigonometric functions and graphs (MAT M4)	38 853	44.89	23.09	0	27	44	60	100
Geometric reasoning (MAT M5)	38 853	38.93	22.72	0	23	33	50	100

Table 17: NBT MAT subdomains median (p50) performance indicator per faculty: 2024 intake

Faculty	**MAT M1**	**MAT M2**	**MAT M3**	**MAT M4**	**MAT M5**
Allied Healthcare/Nursing	33	25	33	33	25
Art/Design	35	25	33	33	27
Business/Commerce/Management	47	33	46	44	36
Education	27	25	31	29	25
Engineering/Built Environment	47	33	50	44	42
Health Science	47	25	50	44	33
Hospitality/Tourism	32	25	31	32	25
Humanities	33	25	33	33	25
ICT	47	33	46	44	33
Law	33	25	33	33	25
Mathematics/Science	60	50	58	56	50
Other/Unspecified	40	25	38	38	33
Total	46	25	46	44	33

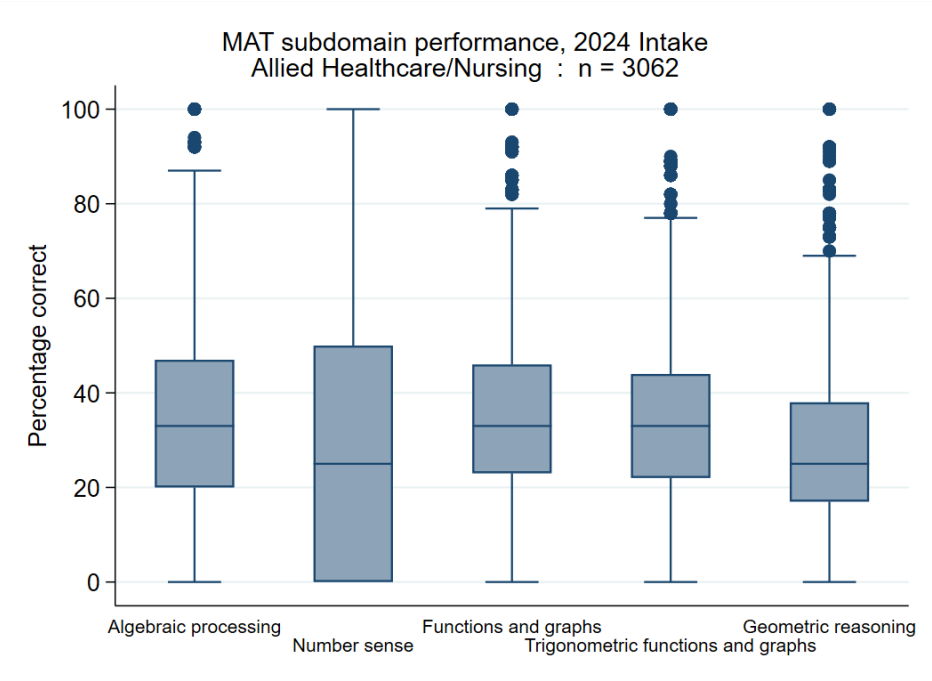

Figure 37: Allied Healthcare/Nursing MAT subdomain performance: 2024 intake

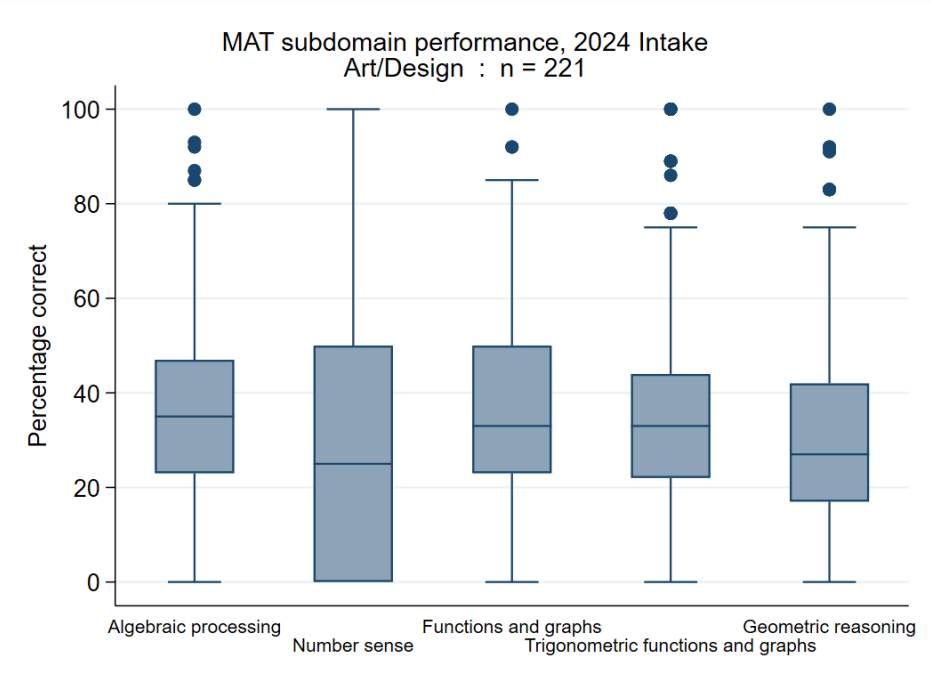

Figure 38: Art/Design MAT subdomain performance: 2024 intake

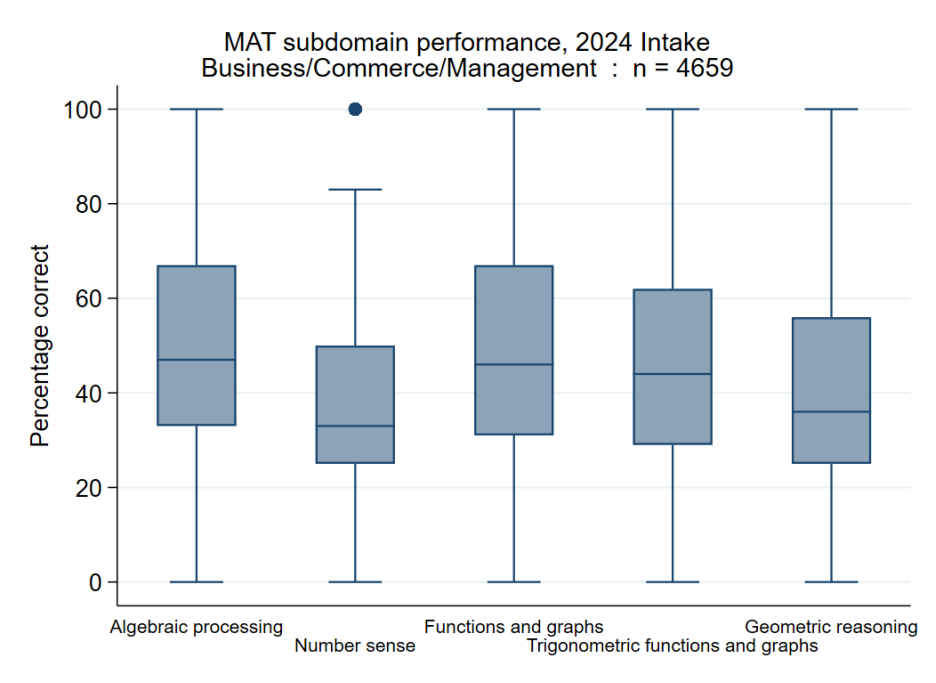

Figure 39: Business/Commerce/Management MAT subdomain performance: 2024 intake

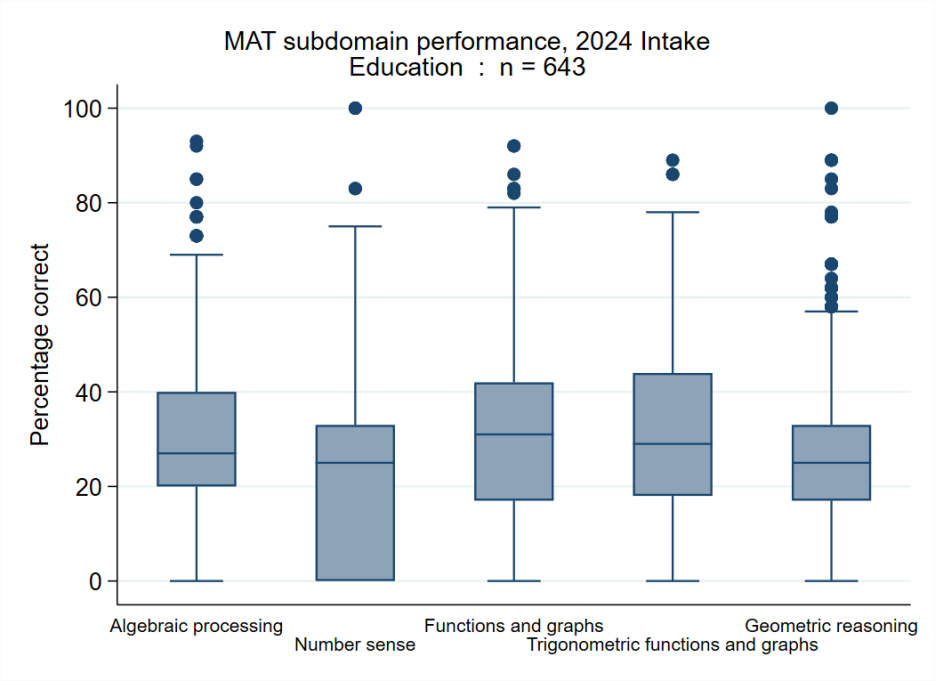

Figure 40: Education MAT subdomain performance: 2024 intake

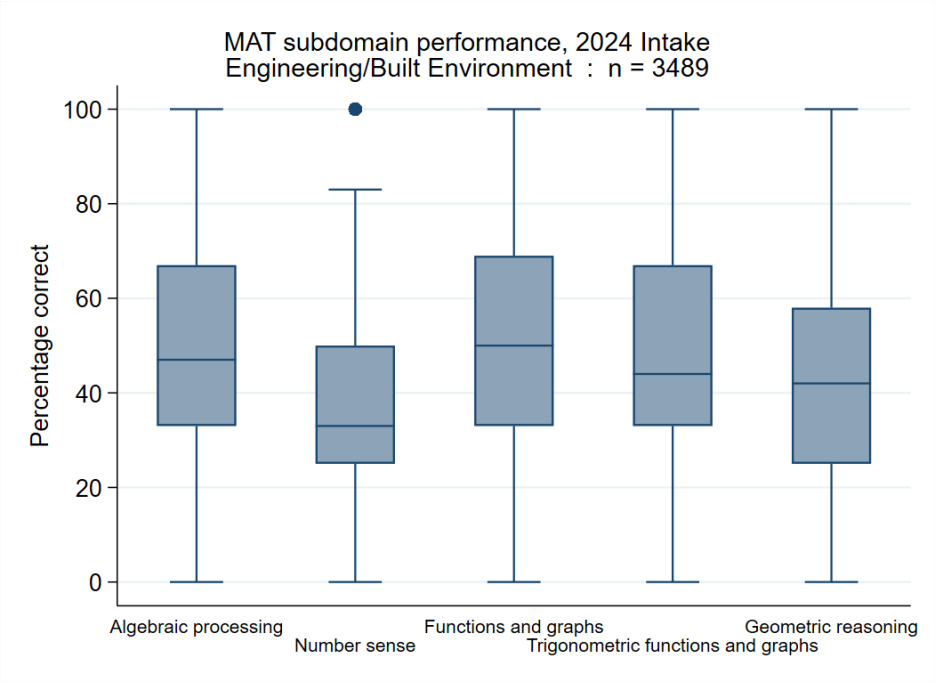

Figure 41: Engineering/Built Environment MAT subdomain performance: 2024 intake

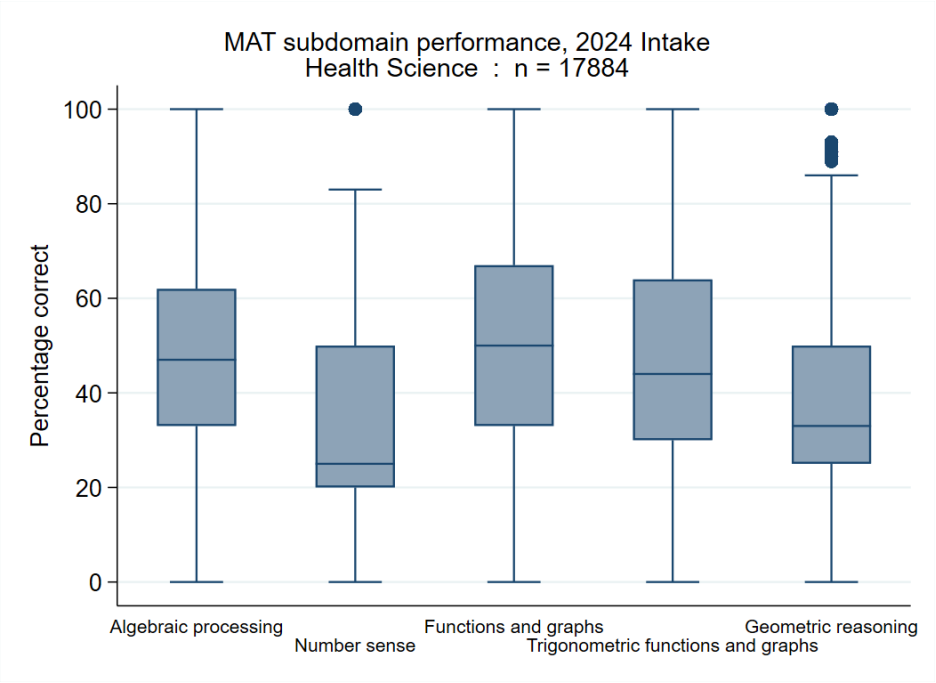

Figure 42: Health Sciences MAT subdomain performance: 2024 intake

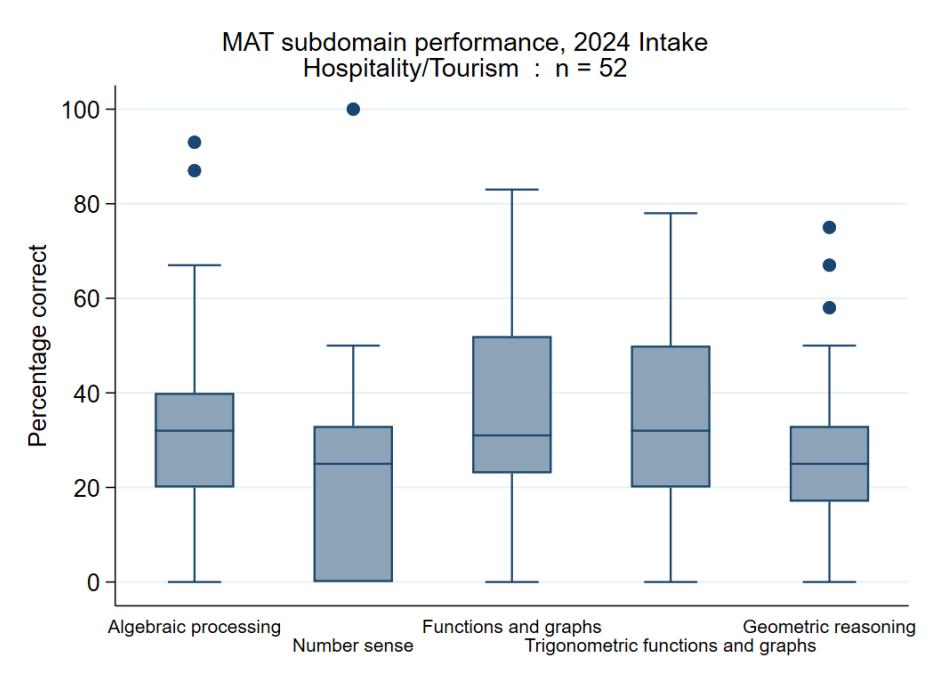

Figure 43: Hospitality/Tourism MAT subdomain performance: 2024 intake

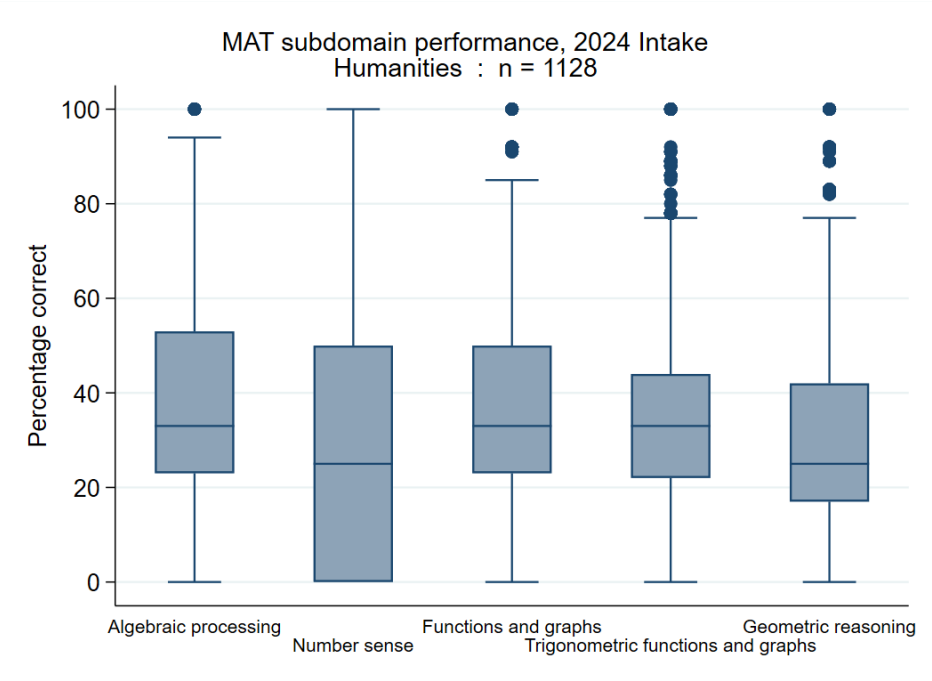

Figure 44: Humanities MAT subdomain performance: 2024 intake

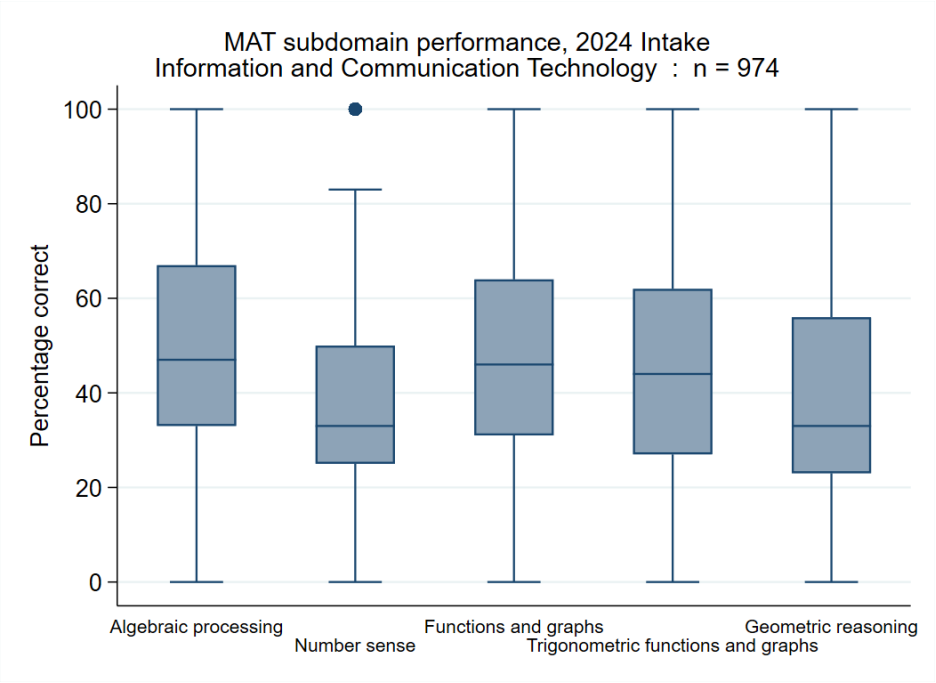

Figure 45: Information and Communication Technology MAT subdomain performance: 2024 intake

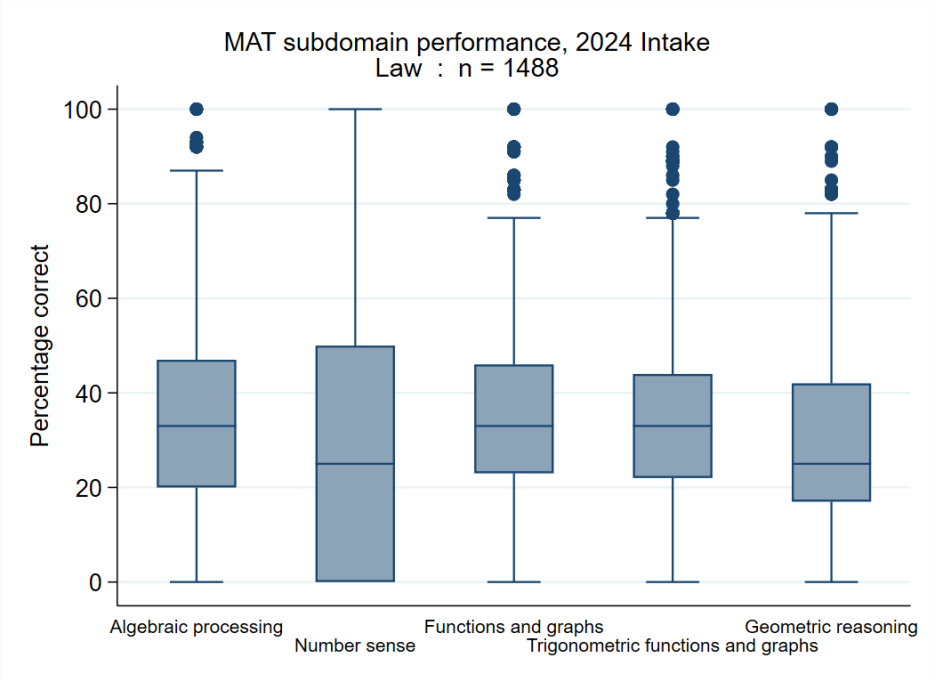

Figure 46: Law MAT subdomain performance: 2024 intake

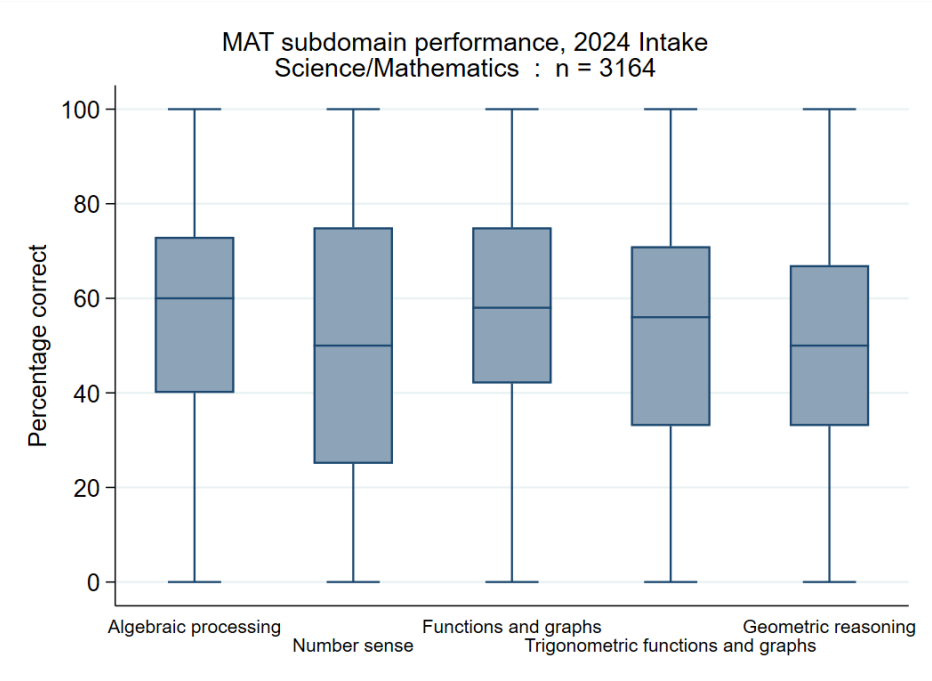

Figure 47: Science/Mathematics MAT subdomain performance: 2024 intake

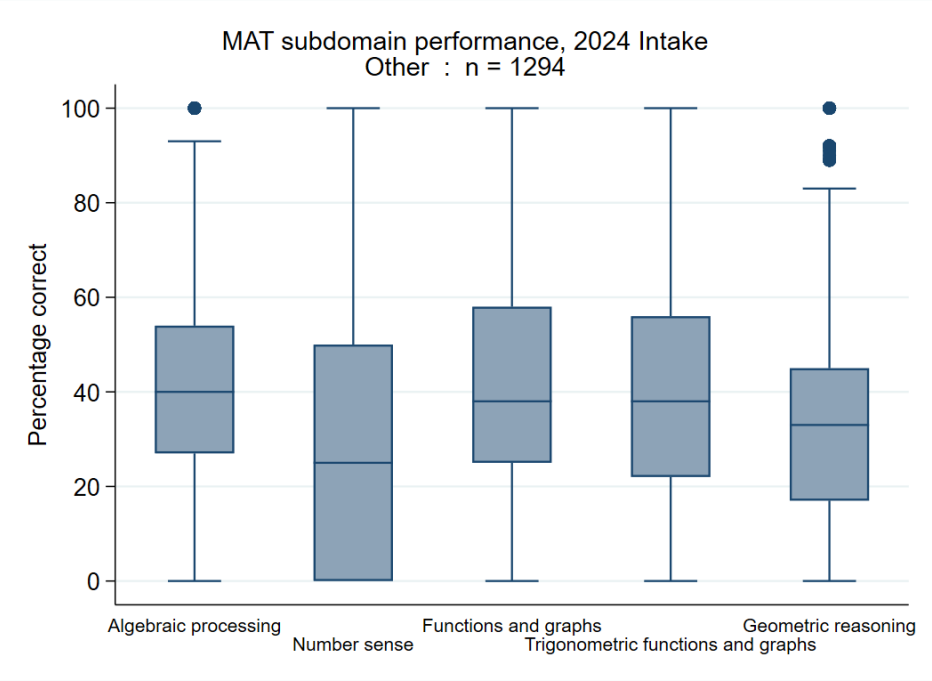

Figure 48: Other MAT subdomain performance: 2024 intake

4. Comparison of NBT performance: 2024 intake

4.1 NBT performance by test language

4.1.1 AL performance by intended faculty of study, tests written in English and Afrikaans

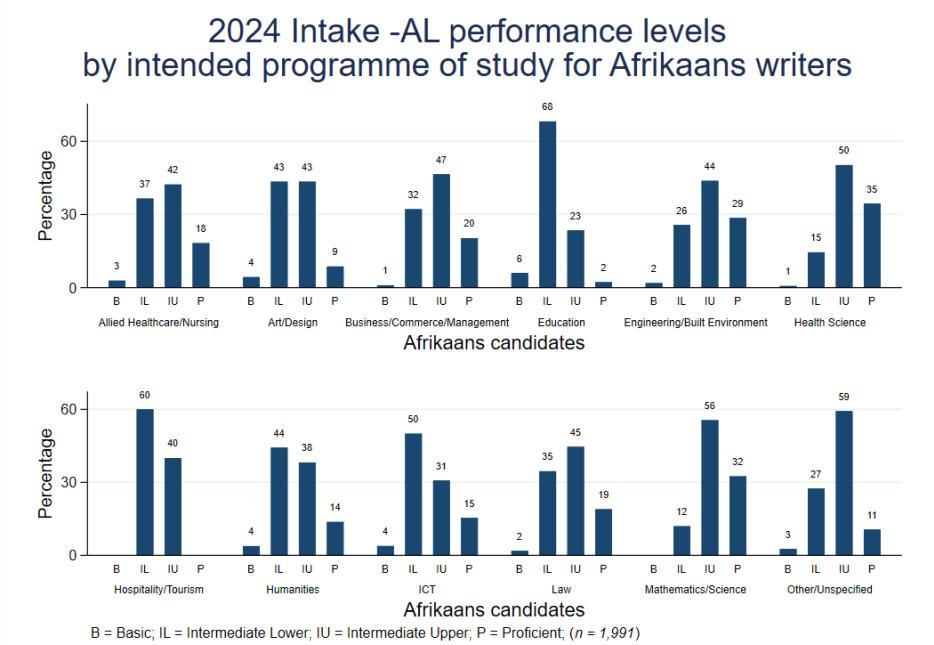

Figure 49: NBT AL performance levels by intended faculty of study for Afrikaans writers: 2024 intake

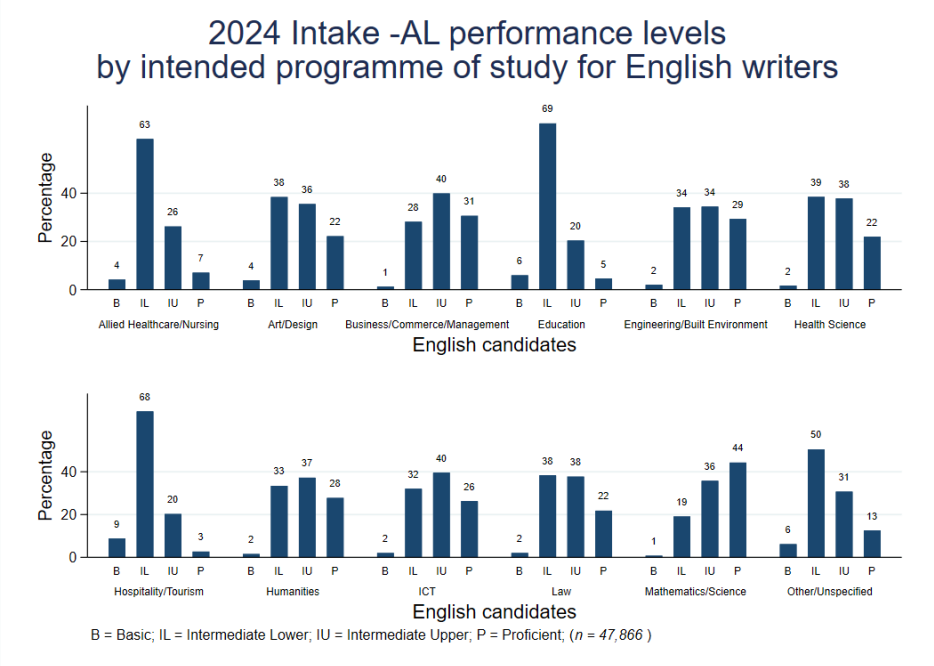

Figure 50: NBT AL performance levels by intended faculty of study for English writers: 2024 intake

4.1.2 QL performance by intended faculty of study, tests written in English and Afrikaans

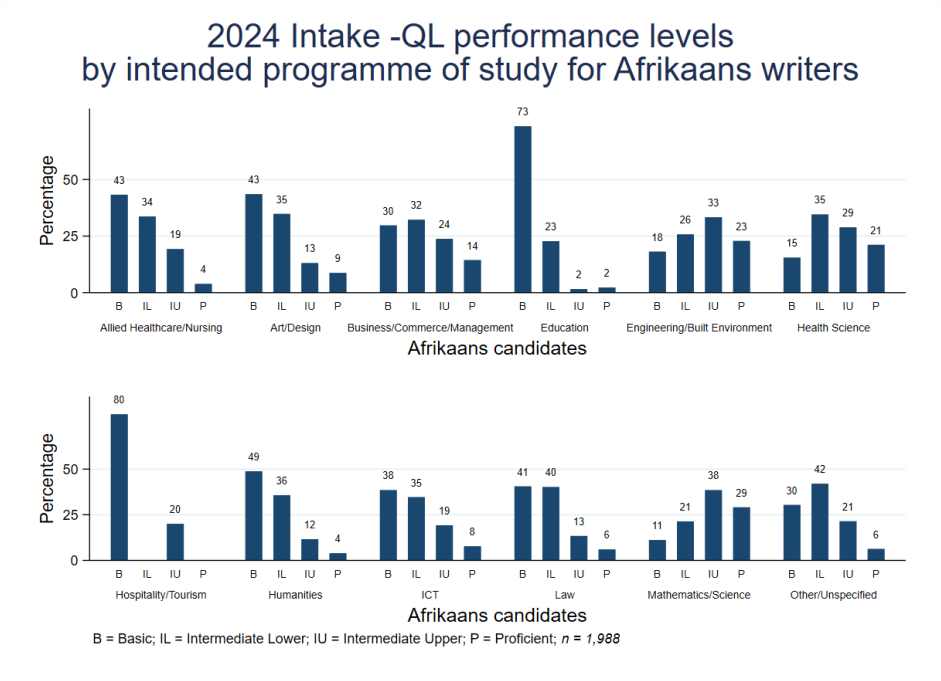

Figure 51: NBT QL performance levels by intended faculty of study for Afrikaans writers: 2024 intake

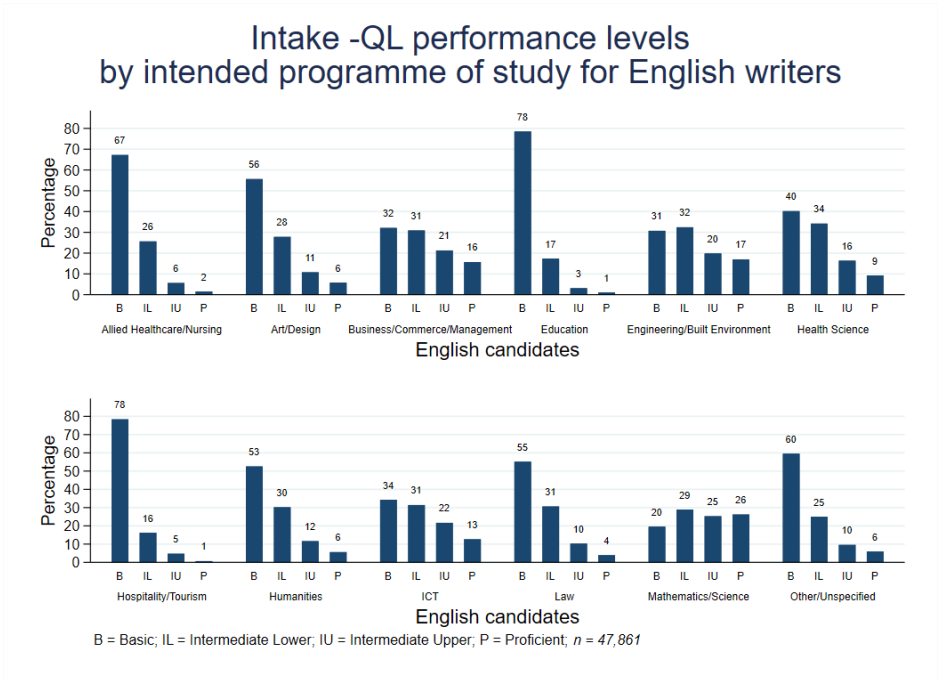

Figure 52: NBT QL performance levels by intended faculty of study for English writers: 2024 intake

4.1.3 MAT performance by intended faculty of study, tests written in English and Afrikaans

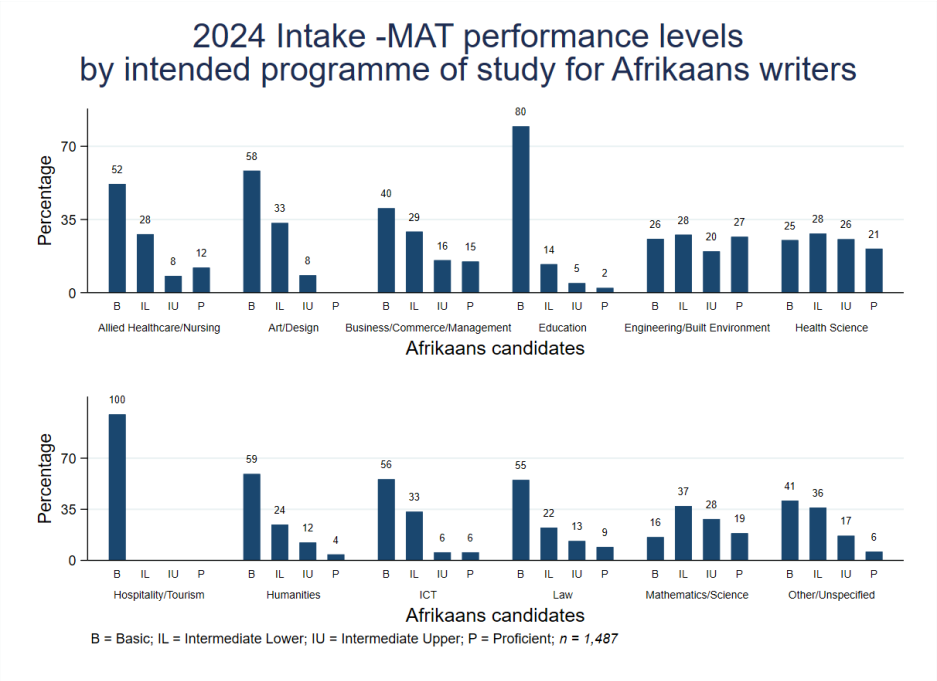

Figure 53: NBT MAT performance levels by intended faculty of study for Afrikaans writers: 2024 intake

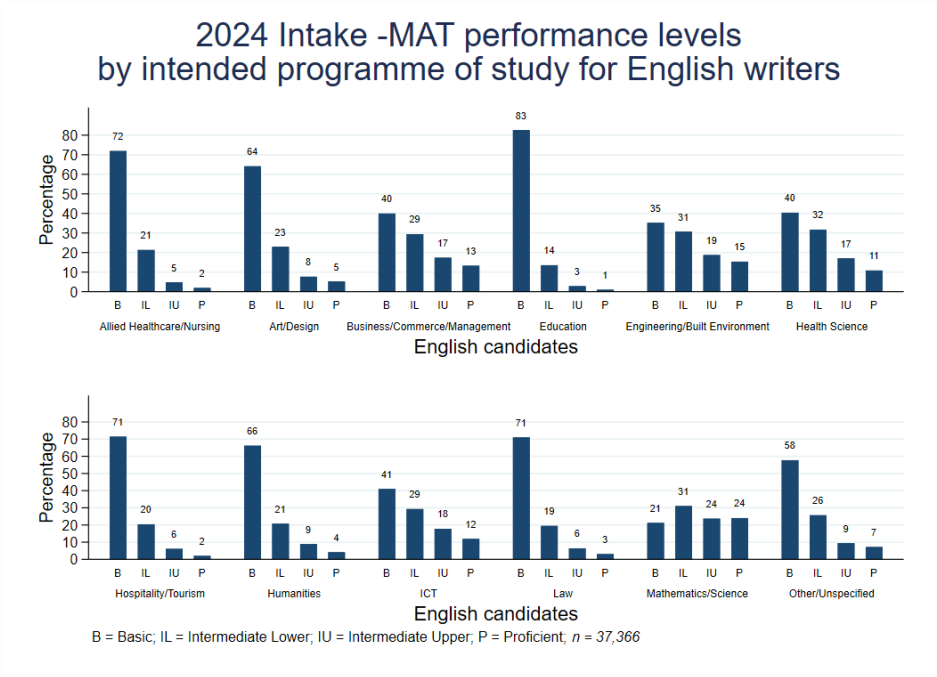

Figure 54: NBT MAT performance levels by intended faculty of study for English writers: 2024 intake

4.2 Comparison of the 2023 intake results to the 2024 intake results

4.2.1 AL, QL, and MAT by performance benchmarks

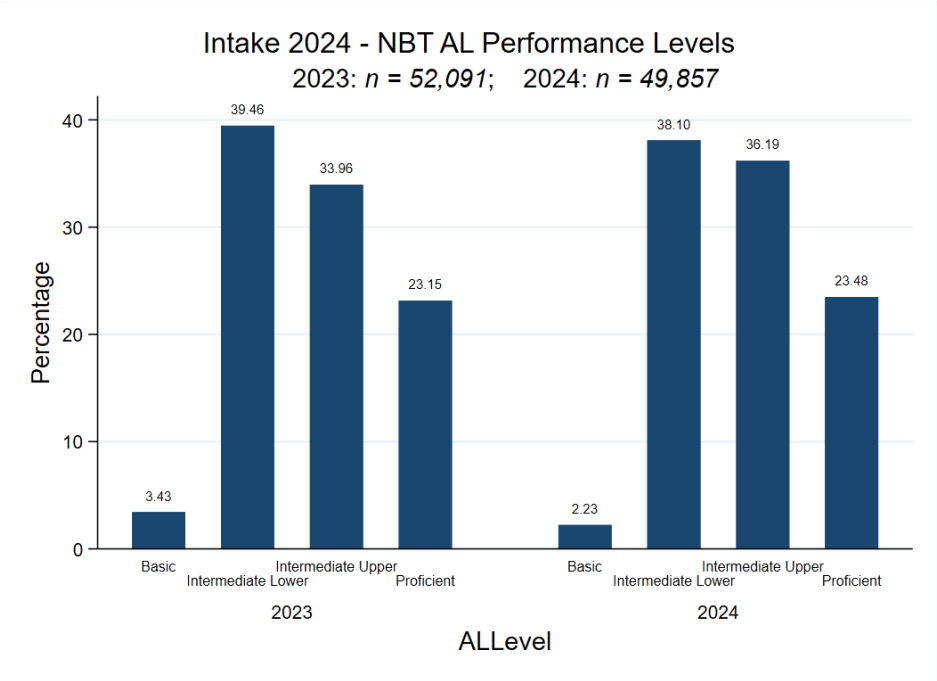

Figure 55: Performance in NBT AL, 2023 and 2024 intake cycles

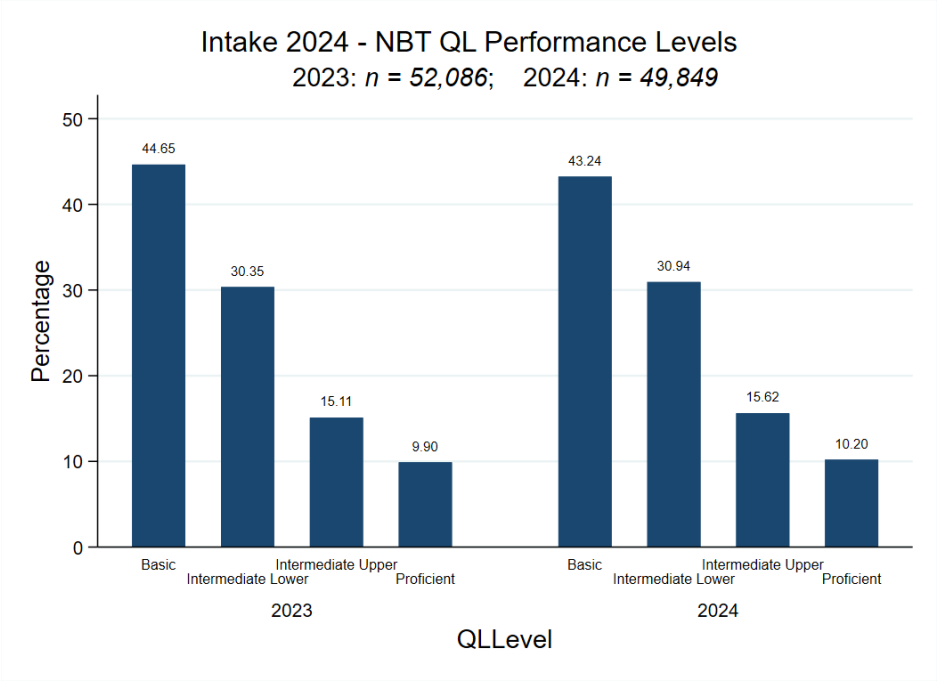

Figure 56: Performance in NBT QL, 2023 and 2024 intake cycles

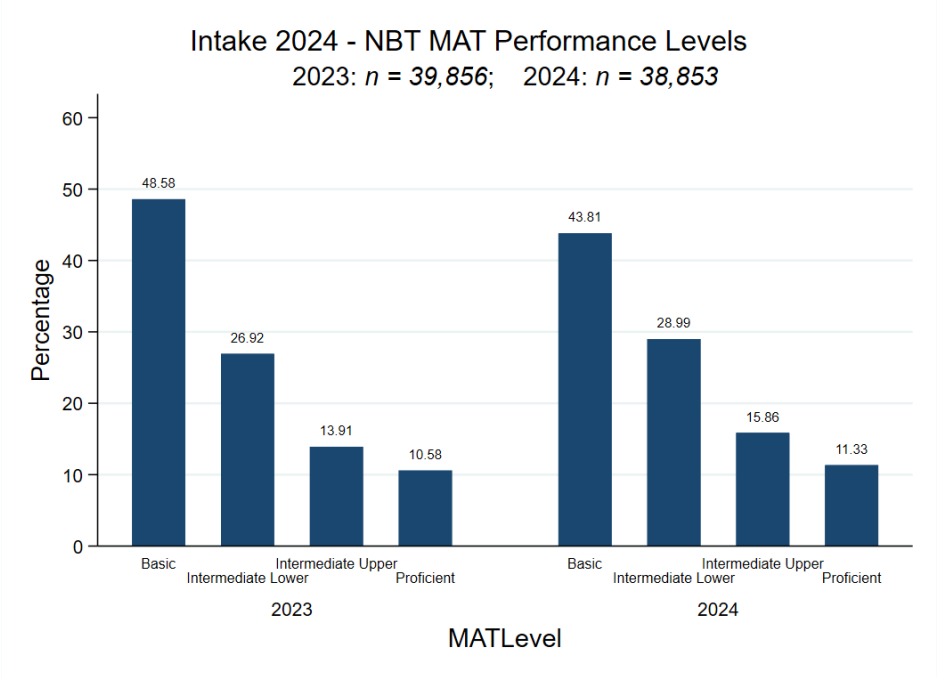

Figure 57: Performance in NBT MAT, 2023 and 2024 intake cycles

4.2.2 AL, QL, and MAT by test language

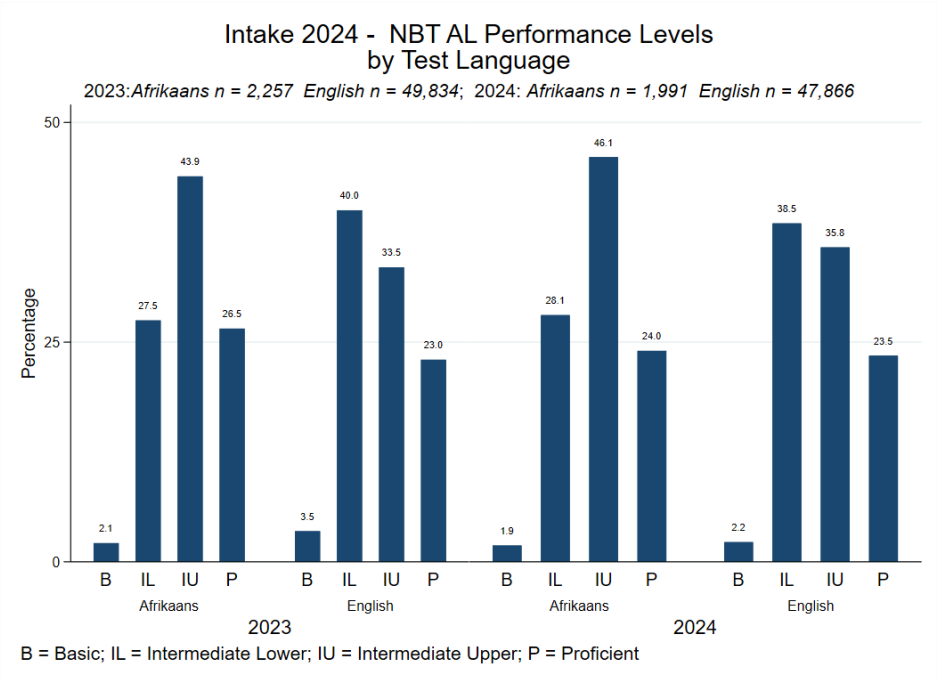

Figure 58: NBT AL performance by test language, 2023 and 2024 intake cycles

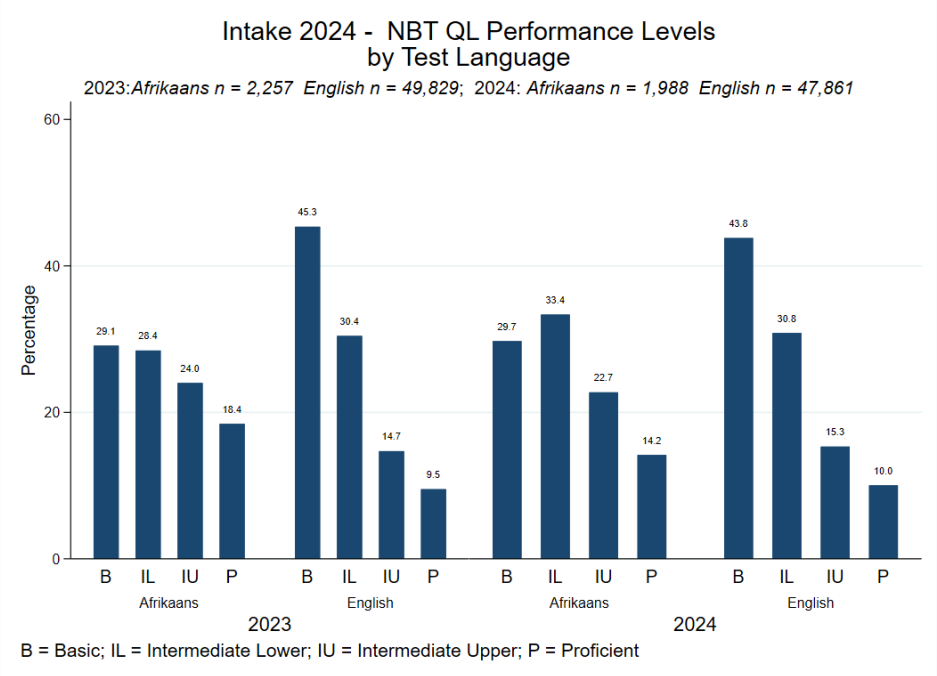

Figure 59: NBT QL performance by test language, 2023 and 2024 intake cycles

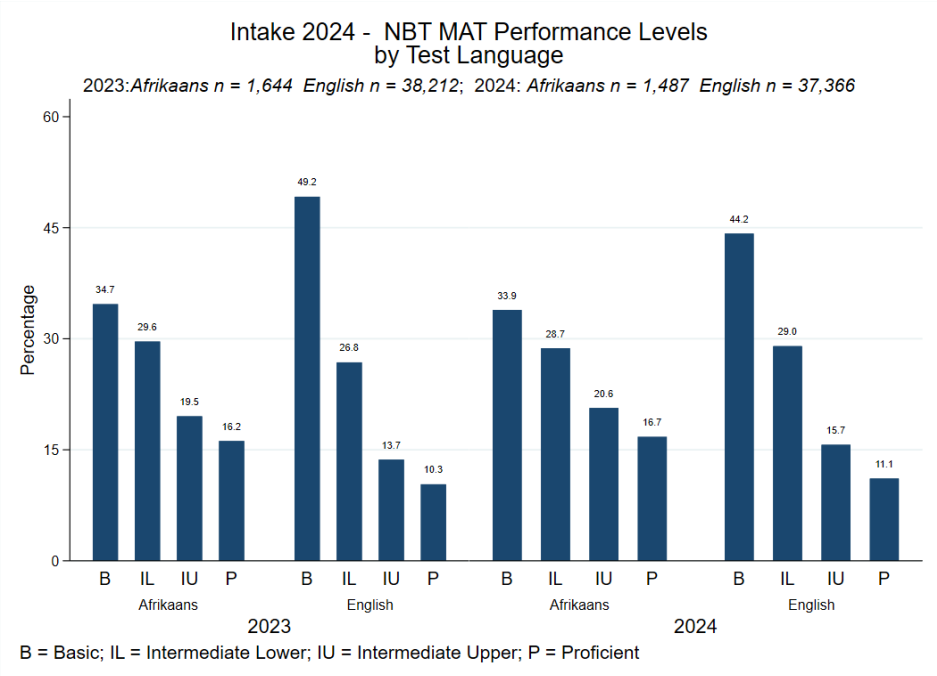

Figure 60: NBT MAT performance by test language, 2023 and 2024 intake cycles

4.2.3 AL, QL, and MAT by citizenship

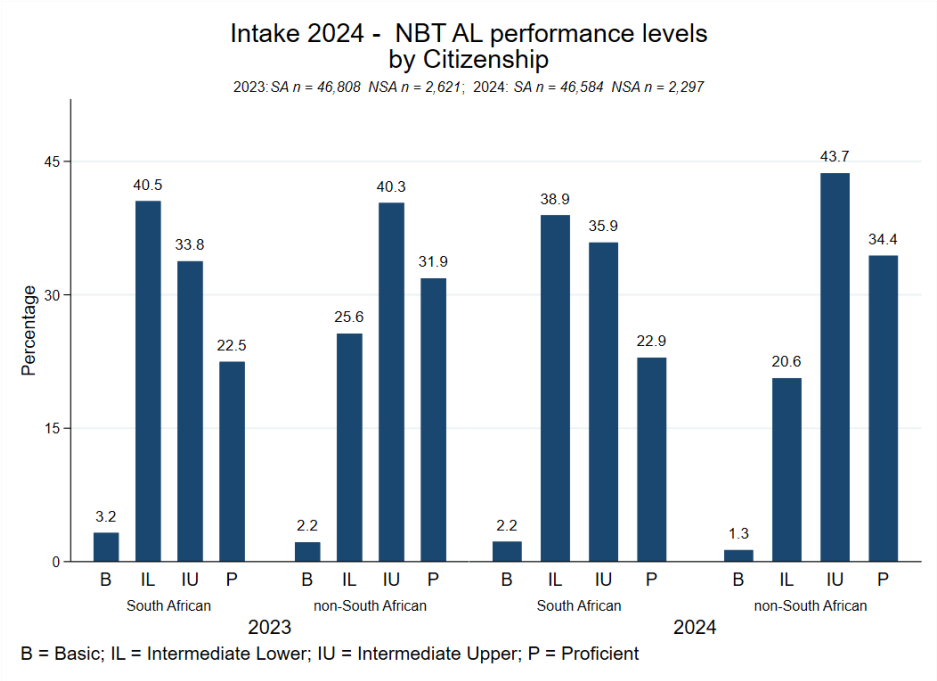

Figure 61: NBT AL performance levels by citizenship, 2023 and 2024 intake

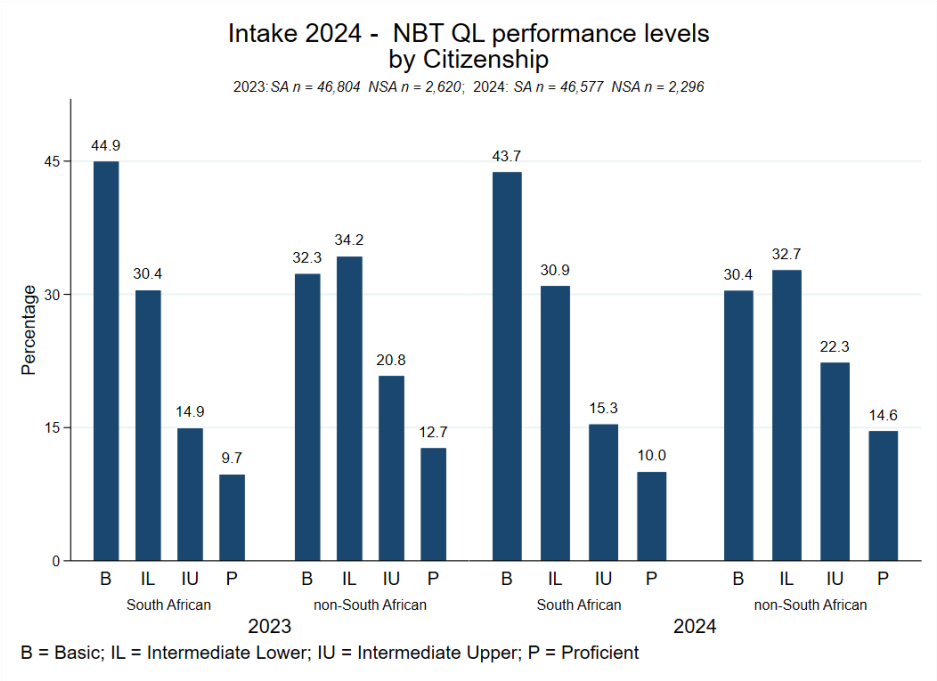

Figure 62: NBT QL performance levels by citizenship, 2023 and 2024 intake

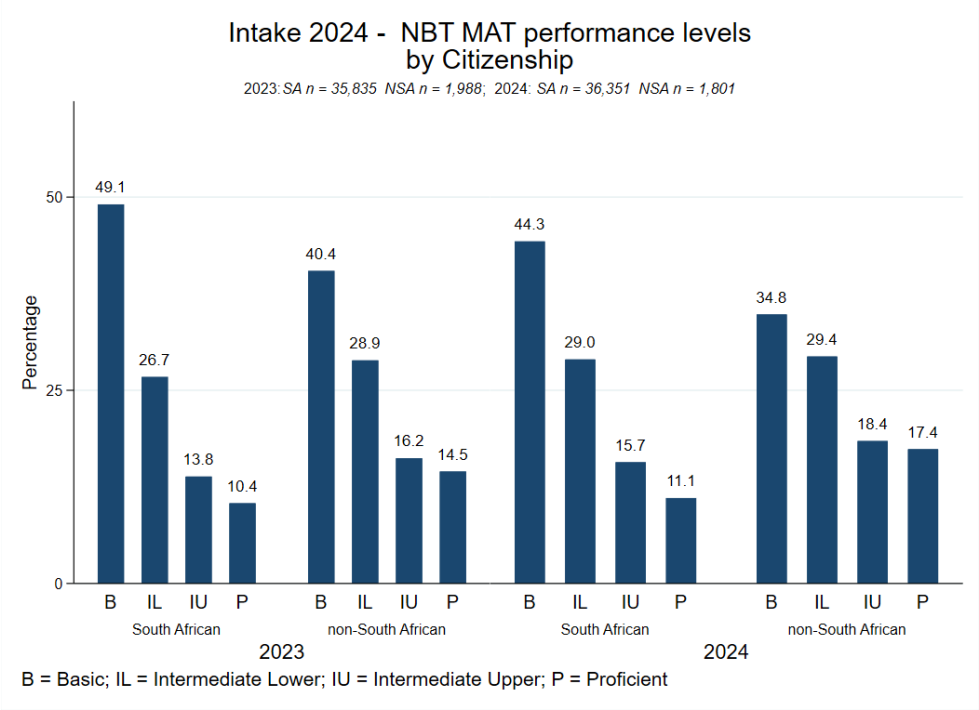

Figure 63: NBT MAT performance levels by citizenship, 2023 and 2024 intake

5. Performance of the NSC cohort in the NBT domains and in cognate NSC subjects: 2024 intake

This section of the report presents and discusses associations between the NSC examination and the NBTs. The aim is to examine the extent to which the NBTs might provide complementary information to that provided by the NSC about the school-leaving cohort wishing to enter higher education.

The NSC is structured according to specific categories of subjects and rules of combination. For a learner to obtain an NSC, the learner must offer seven approved subjects and provide full evidence of school-based assessments for each subject, and he or she must also:

(a) complete the programme requirements for Grades 10, 11 and 12 separately and obtain the distinct outcomes and associated assessment standards of all three years;
(b) comply with the internal assessment requirements for Grades 10, 11 and 12 and the external assessment requirements of Grade 12.

The minimum requirements to obtain an NSC are:

(a) Achievement of 40% in three subjects, one of which is an official language at Home Language level;
(b) Achievement of 30% in three other subjects; and
(c) Full evidence in the school-based assessment component in the subject field.

Table 18: Scale of NSC achievement/level descriptors

Achievement level	Achievement description	Marks %
7	Outstanding achievement	80 – 100
6	Meritorious achievement	70 – 79
5	Substantial achievement	60 – 69
4	Adequate achievement	50 – 59
3	Moderate achievement	40 – 49
2	Elementary achievement	30 – 39
1	Not achieved	0 – 29

5.1 Minimum requirements for admission to the Higher Certificate, Diploma and Bachelor's Degree

Minimum higher education admission requirements in accordance with the three levels of undergraduate programmes are as follows:

(a) Higher Certificate

The minimum admission requirement is an NSC with a minimum of 30% in the language of learning and teaching of the higher education institution as certified by Umalusi, the quality assurance council. Institutional and programme needs may require additional combinations of recognised NSC subjects and levels of achievement.

(b) Diploma

The minimum admission requirement is an NSC with a minimum of 30% in the language of learning and teaching of the higher education institution as certified by Umalusi, the quality assurance council, coupled with an achievement rating of 3 (Moderate Achievement, 40%–49%) or better in four recognised NSC 20-credit subjects. Institutional and programme needs may require additional combinations of recognised NSC subjects and levels of achievement.

(c) Bachelor's Degree

The minimum admission requirement is an NSC with a minimum of 30% in the language of learning and teaching of the higher education institution as certified by Umalusi, the quality assurance council, coupled with an achievement rating of 4 (Adequate achievement, 50% – 59%) or better in four subjects chosen from the 20 credit-bearing NSC subjects. Some of these subjects are listed in Table 19.

Table 19: The higher education designated subject list

Accounting	Information Technology
Agricultural Science	Languages
Business Studies	Life Sciences
Consumer Studies	Mathematics
Dramatic Arts	Mathematical Literacy
Economics	Music
Engineering Graphics and Design	Physical Sciences
Geography	Religion Studies
History	Visual Arts

5.2 Notes on the sample used for the analysis in this section

Since it is not clear which result to keep if a candidate wrote the NBTs multiple times, the scores of all candidates who wrote the NBTs more than once were excluded from this subsample. Calculation of a correlation coefficient is based on the assumption that the data satisfy the assumption of independence of observations, i.e., observations are not influenced by each other. Repeated occurrences of one individual would be an example of observations that influence each other, and NSC results were then matched.

It should be noted that list-wise deletion was utilised when correlation coefficients were calculated and scatterplots were constructed. List-wise deletion means that candidates were excluded from analysis if any single value for a particular calculation was missing. The sample was further analysed separately by higher education admission type (Degree; Diploma/Higher Certificate).

The NSC subject codes are as follows:

MTHN = Mathematics

MTLN = Mathematical Literacy

ENHN = English Home Language

ENFN = English First Additional Language

PSCN = Physical Sciences

5.3 Self-reported demographics

Table 20: NSC cohort for NBT self-reported demographics: 2024 intake

	Full Cohort		**Bachelor's degree pass**		**Diploma or Higher Certificate pass**	
	n	%	n	%	n	%
GENDER						
Male	10 661	31.26	9 723	31.66	938	27.62
Female	23 024	67.51	20 608	67.1	2 416	71.14
Unspecified	422	1.24	380	1.24	42	1.24
Total	34 107	100	30 711	100	3 396	100
POPULATION GROUP						
Black	22 622	66.33	20 081	65.39	2 541	74.82
Coloured	4 054	11.89	3 524	11.47	530	15.61
Indian/Asian	2 512	7.37	2 357	7.67	155	4.56
White	3 612	10.59	3 565	11.61	47	1.38
Other	101	0.3	91	0.3	10	0.29
Unspecified	1 206	3.54	1 093	3.56	113	3.33
Total	34 107	100	30 711	100	3 396	100
CITIZENSHIP						
South African	33 194	97.32	29 872	97.27	3 322	97.82
SADC countries	104	0.3	103	0.34	1	0.03
Other African countries	123	0.36	117	0.38	6	0.18

Other	94	0.28	91	0.3	3	0.09
Unspecified	592	1.74	528	1.72	64	1.88
Total	34 107	100	30 711	100	3 396	100
GR 12 LANGUAGE						
Afrikaans	2 050	6.01	1 877	6.11	173	5.09
English	30 384	89.08	27 341	89.03	3 043	89.61
Other	1 068	3.13	951	3.1	117	3.45
Unspecified	605	1.77	542	1.76	63	1.86
Total	34 107	100	30 711	100	3 396	100
HOME LANGUAGE						
Afrikaans	3 060	8.97	2 839	9.24	221	6.51
English	10 268	30.11	9 386	30.56	882	25.97
isiNdebele	214	0.63	193	0.63	21	0.62
isiXhosa	5 543	16.25	4 805	15.65	738	21.73
isiZulu	4 850	14.22	4 452	14.5	398	11.72
Sesotho	2 275	6.67	1 962	6.39	313	9.22
Sesotho sa Leboa	2 280	6.68	2 074	6.75	206	6.07
Setswana	1 566	4.59	1 383	4.5	183	5.39
siSwati	566	1.66	522	1.7	44	1.3
Tshivenda	1 315	3.86	1 150	3.74	165	4.86
Xitsonga	1 186	3.48	1 065	3.47	121	3.56
Other Language	358	1.05	322	1.05	36	1.06
Unspecified	626	1.84	558	1.82	68	2
Total	34 107	100	30 711	100	3 396	100
HE ADMISSION						
Bachelors degree	30 711	90.04				
Diploma/Higher Certificate	3 396	9.96				
Total	34 107	100				

5.4 Descriptive statistics

Table 21: Descriptive statistics for NBTs and NSCs: 2024 intake

	n	Mean, %	SD, %	Min., %	1st Quartile, %	Median, %	3rd Quartile, %	Max., %
FULL COHORT								
ALScore	34 107	56.86	13.97	14	45	56	68	96
QLScore	34 101	47.37	15.02	15	36	43	56	98
MathsScore	27 795	44.99	16.91	17	31	40	55	98
MTHN	28 702	62.88	18.32	0	50	64	77	100
MTLN	5 494	66.92	13.95	23	57	68	78	99
ENHN	19 918	68.42	10.04	35	61	69	76	98
ENFN	14 189	72.86	8.54	40	67	73	79	98
PSCN	24 291	62.85	16.49	14	51	63	76	100
BACHELOR'S DEGREE								
ALScore	30 711	58.05	13.81	20	47	58	69	96
QLScore	30 706	48.46	15.22	15	37	44	58	98
MathsScore	25 309	46.38	17.01	19	32	42	57	98
MTHN	26 105	65.54	16.78	0	53	66	78	100
MTLN	4 710	69.67	12.21	25	61	71	79	99
ENHN	17 804	69.95	9.16	36	63	70	76	98
ENFN	12 907	73.93	7.83	43	69	74	79	98
PSCN	22 120	65.41	14.85	19	54	66	77	100
DIPLOMA/CERTIFICATE								
ALScore	3 396	46.11	10.38	14	38	43	52.5	86
QLScore	3 395	37.51	7.93	17	33	36	39	90
MathsScore	2 486	30.83	5.64	17	28	29	32	90
MTHN	2 597	36.09	9.52	5	30	36	43	72
MTLN	784	50.38	12.19	23	42	48	59	89
ENHN	2 114	55.51	7.54	35	50	55	61	82
ENFN	1 282	62.01	7.83	40	56	62	68	86
PSCN	2 171	36.82	7.22	14	32	37	42	73

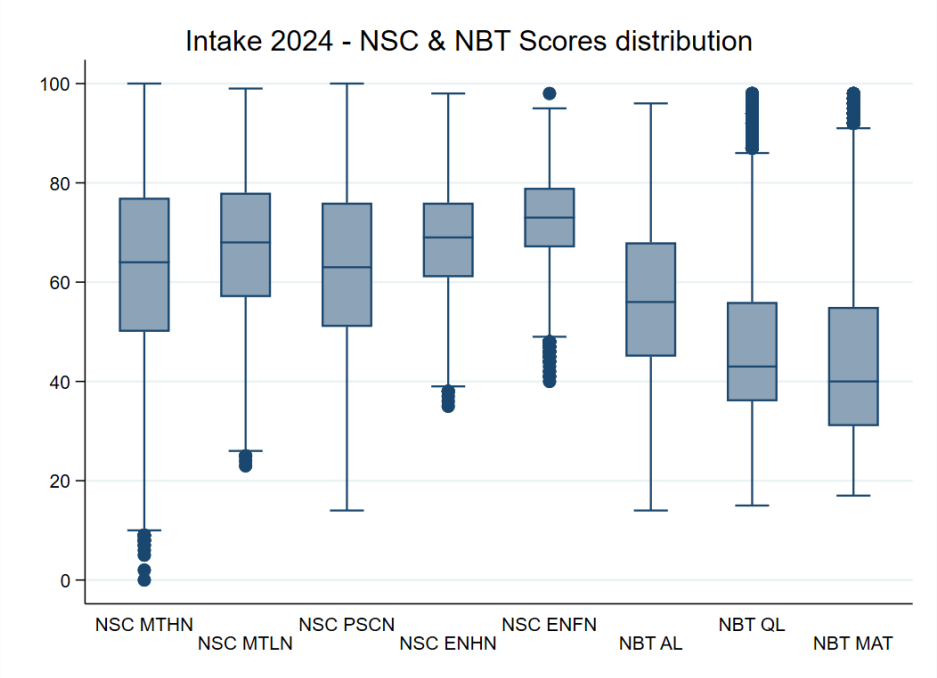

Figure 64: NBT/NSC scores distribution: 2024 intake

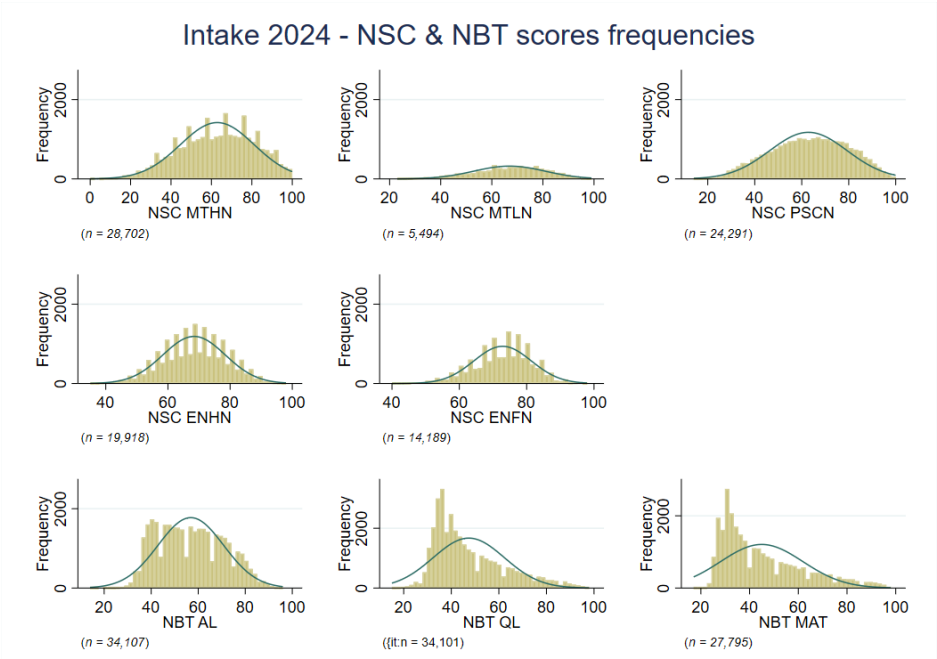

Figure 65: NBT/NSC score frequencies: 2024 intake

6. NBT benchmarks

Table 22: NBT benchmark levels for the NSC cohort: 2024 intake

	Basic		Intermediate Lower		Intermediate Upper		Proficiency		Total
	n	%	n	%	n	%	n	%	n
ACADEMIC LITERACY									
Bachelor's degree	450	1.32	10 677	31.3	11 628	34.09	7 956	23.33	30 711
Diploma/Higher Certificate	71	0.21	1 996	5.85	944	2.77	385	1.13	3 396
QUANTITATIVE LITERACY									
Bachelor's degree	11 431	33.52	10 169	29.82	5 470	16.04	3 636	10.66	30 706
Diploma/Higher Certificate	971	2.85	2 138	6.27	241	0.71	45	0.13	3 395
MATHEMATICS									
Bachelor's degree	9 563	34.41	7 974	28.69	4 451	16.01	3 321	11.95	25 309
Diploma/Higher Certificate	1 933	6.95	514	1.85	29	0.1	10	0.04	2 486

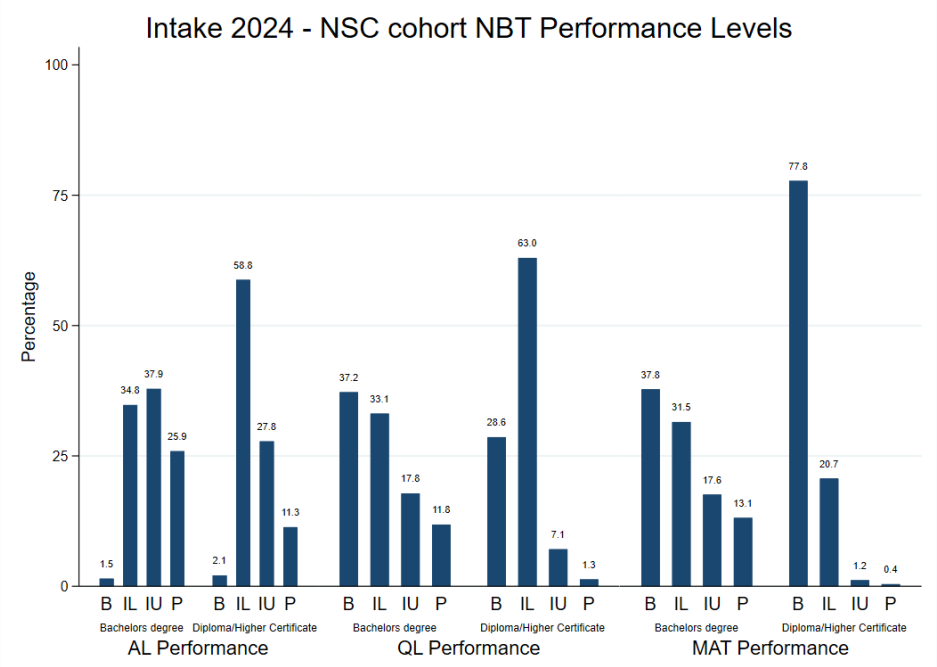

Figure 66: NSC cohort performance levels on NBT: 2024 intake

6.1 Associations between scores on the NBT in Academic Literacy and the NSC Examination for English

Table 23: Correlation matrix for the NSC and NBT results, Bachelor's degree: 2024 intake

Bachelor's	NBT AL	NBT QL	NBT MAT	NSC MTHN	NSC MTLN	NSC ENHN	NSC ENFN	NSC PSCN
NBT AL	1							
	30 711							
NBT QL	0.6801	1						
	30 706	30 706						
NBT MAT	0.53	0.6955	1					
	25 309	25 309	25 309					
NSC MTHN	0.2935	0.4918	0.7417	1				
	26 105	26 103	24 907	26 105				
NSC MTLN	0.539	0.5797	0.3412	0.5785	1			
	4 710	4 707	495	135	4 710			
NSC ENHN	0.7092	0.577	0.5437	0.5398	0.5683	1		
	17 804	17 800	13 884	14 448	3 476	17 804		
NSC ENFN	0.6204	0.4533	0.4325	0.4109	0.5405	.	1	
	12 907	12 906	11 425	11 657	1 234	0	12 907	
NSC PSCN	0.2769	0.4312	0.6647	0.8818	.	0.5522	0.4607	1
	22 120	22 120	21 580	22 119	0	11 366	10 754	22 120

Table 24: Correlation matrix for the NSC and NBT results, Diploma/Higher Certificate: 2024 intake

	NBT AL	NBT QL	NBT MAT	NSC MTHN	NSC MTLN	NSC ENHN	NSC ENFN	NSC PSCN
NBT AL	1							
	3 396							
NBT QL	0.5664	1						
	3 395	3 395						
NBT MAT	0.3225	0.3776	1					
	2 486	2 486	2 486					
NSC MTHN	0.079	0.1828	0.241	1				
	2 597	2 597	2 363	2 597				
NSC MTLN	0.5465	0.5162	-0.0467	0.9099	1			
	784	783	118	3	784			
NSC ENHN	0.5769	0.3113	0.1127	0.1124	0.3154	1		
	2 114	2 114	1 451	1 516	587	2 114		
NSC ENFN	0.5447	0.2609	0.0598	0.0837	0.3659	.	1	
	1 282	1 281	1 035	1 081	197	0	1 282	
NSC PSCN	0.0487	0.0584	0.118	0.5468	.	0.0248	0.109	1
	2 171	2 171	2 025	2 171	0	1 185	986	2 171

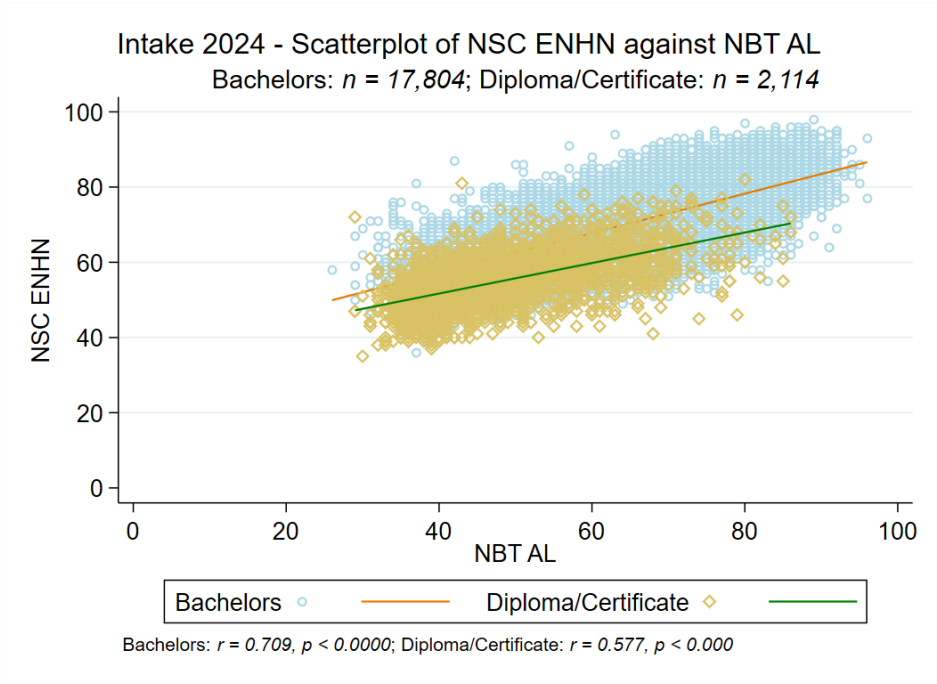

Figure 67: Scatterplot NBT AL vs NSC ENHN: 2024 intake

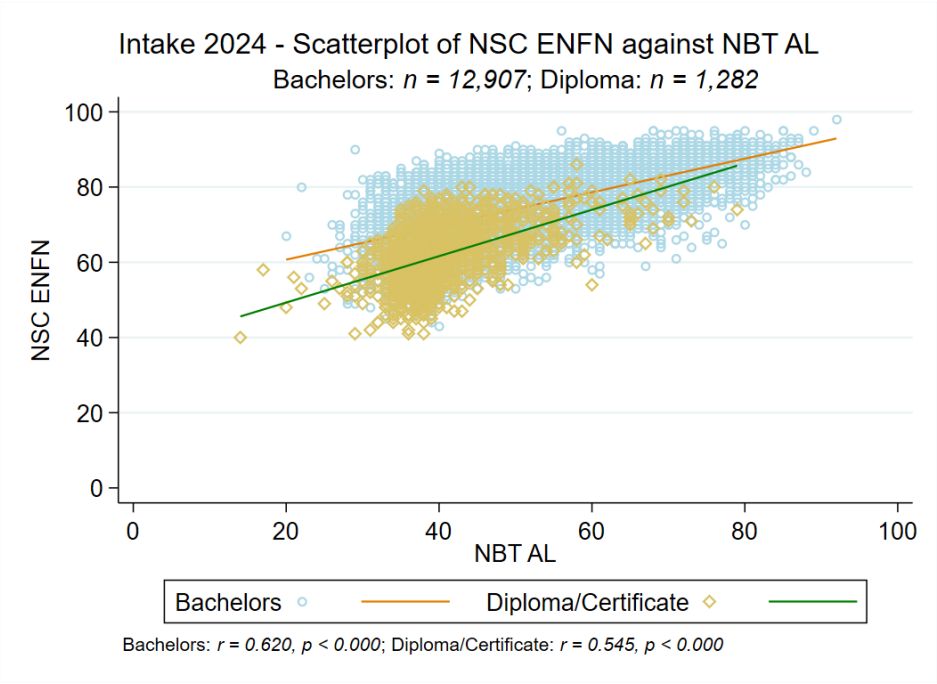

Figure 68: Scatterplot NBT AL vs NSC ENFN: 2024 intake

6.2 Associations between scores on the NBT in Quantitative Literacy and the NSC Examination for Mathematics and Mathematical Literacy

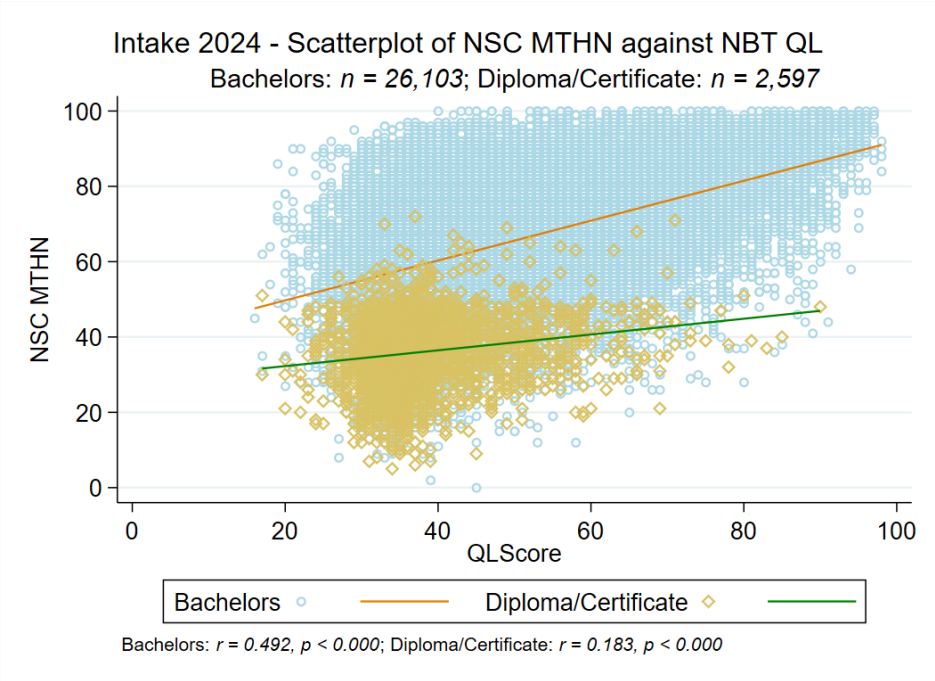

Figure 69: Scatterplot NBT QL vs NSC MTHN: 2024 intake

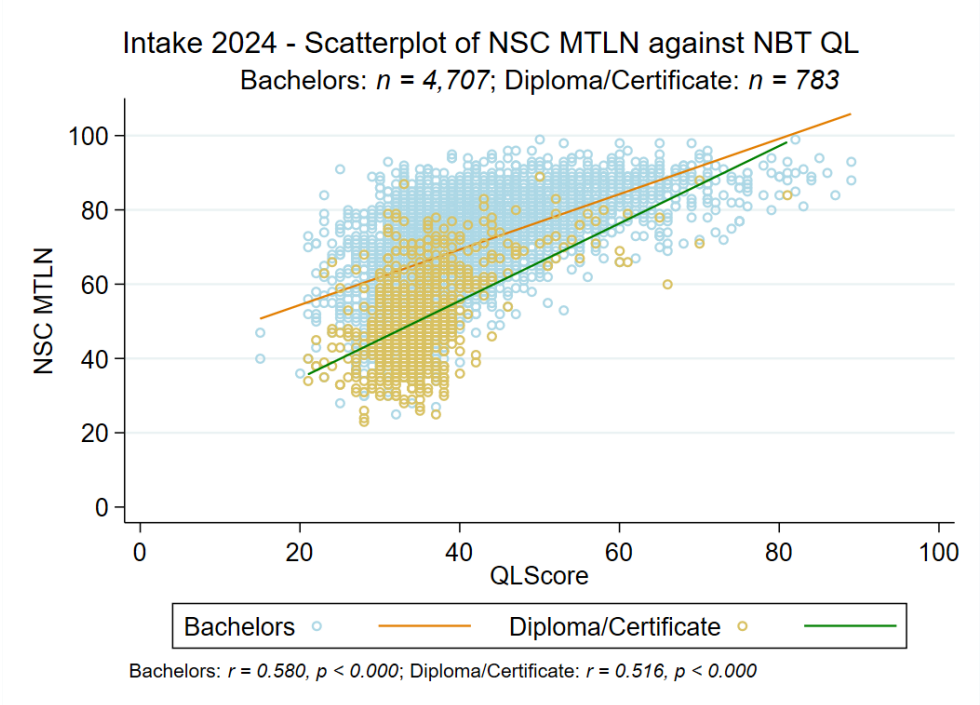

Figure 70: Scatterplot NBT QL vs NSC MTLN: 2024 intake

6.3 Associations between scores on the NBT in Mathematics and the NSC Examination for Mathematics and Physical Science

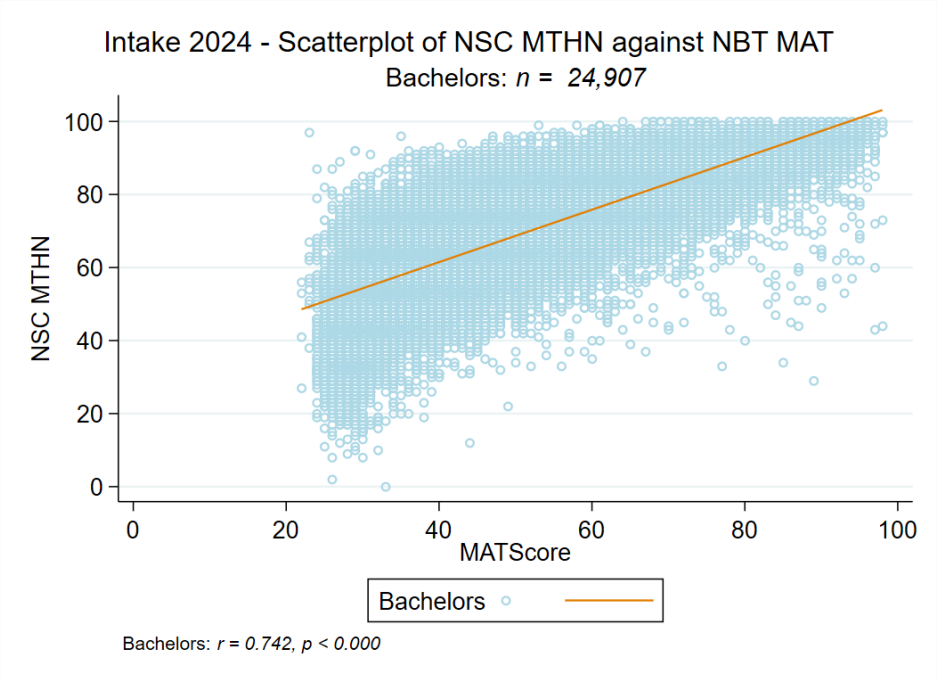

Figure 71: Scatterplot NBT MAT vs NSC MTHN: 2024 intake

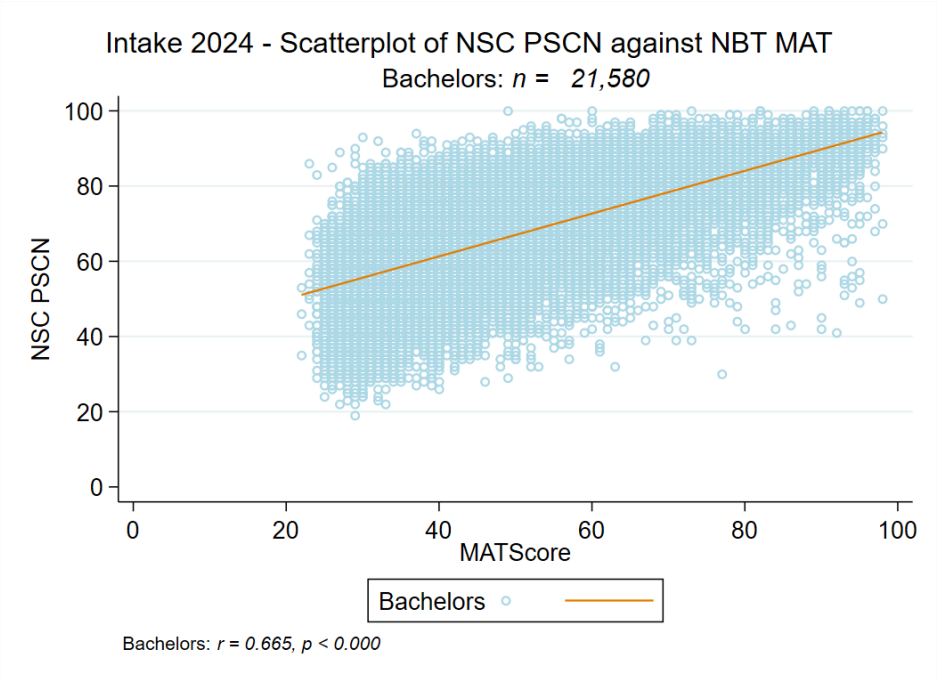

Figure 72: Scatterplot NBT MAT vs NSC PSCN: 2024 intake