

Here is the results of the 2023 Critical Thinking Test (CTT). This was conducted using the CTT originally developed by MIU to measure the diploma policy of "DP1: Advanced thinking" of the School of International Liberal Arts. CT test was conducted at Senior Thesis-1 (class of B. Rodda) for third-year students (students enrolled in 2021) on December 8th, 2023. The number of examinees was 42. Question sheets (23 questions. See example below) prepared in English were distributed and collected after the exam. Students chose the correct answer from four options and answered it in Google Forms.

2023 年度クリティカル・シンキング・テスト (CTT) の結果について報告します。これは、国際教養学部のディプロマ・ポリシー「DP1: 高度な思考力」を測定するために、本学が独自に開発した CTT を活用して実施するものです。3 年生 (2021 年入学生) を対象に、2023 年 12 月 8 日 (金) の卒業研究-1 (ST-1、受講生数 60 人、B. ロダ先生担当) の時間に CT テストを実施した。テスト受験者数は 42 名だった。英語で作成した問題用紙 (23 問、文末の例題を参照) を配布し、学生は 4 つの選択肢から正解を選び、Google Forms で解答した。問題用紙は試験終了後、回収した。

【Analysis】

- 1) Figure 1 shows the distribution of the number of correct answers among the 23 questions. As in the previous years, there is a polarization. 図 1 に、23 問中の正答数の分布を示す。昨年度、一昨年度のように二極化が見られる。

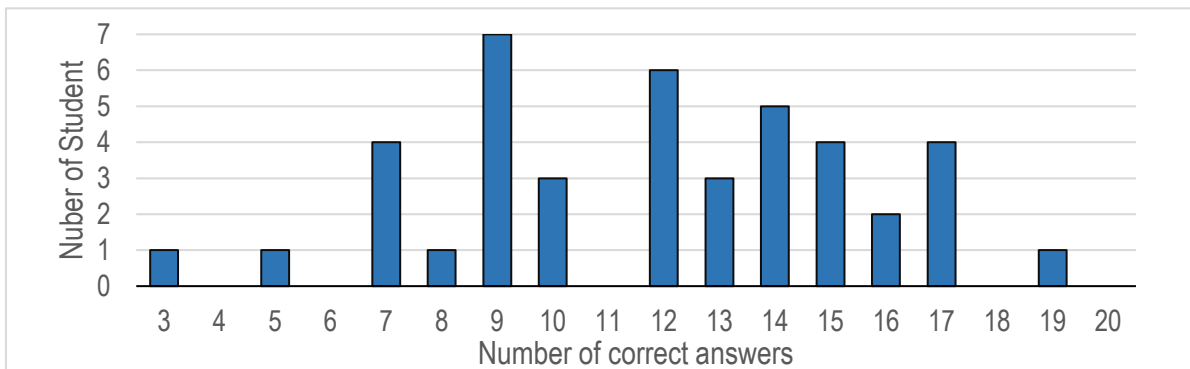


Figure 1. Score distribution of CT Test 2023.

- 2) Average percentage of correct answers is 52.4% (Number of correct answers were 11.6 among 23 questions), which is shown in Table 1 together with past results. This has increased compared to recent results.

正答率の平均値は 52.4% (23 問中平均 11.8 問正答) であり、表 1 に過去の結果とともに示す。最近の成績と比べて増加した。

Table 1. Average percentage of correct answers for each year

| Year | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|------------------|-------|-------|-------|-------|-------|-------|-------|--------------|
| Correct answer % | 55.0% | 47.7% | 50.4% | 50.4% | 46.3% | 46.9% | 49.1% | 52.4% |

3) Table 2 shows the number of students who answered each question correctly. The CTT consisted of seven CT elements ①～⑦. Table 3 shows the number of correct answers for each CT element. It was high in ①Identifying related information and ④Categorical Thinking and low in ②Evaluating reliability of information. This trend has not changed significantly from last year.

表 2 に、各問の正答学生数を示す。CTT は 7 つの CT 要素①～⑦からなっている。表 3 には、CT 要素毎の正答数を示す。正答数は「①関連情報の見極め」「④分類的思考法」で高く、「②情報の信頼性の評価」で低くなった。この傾向は、昨年度と大きな変化はない。

4) In the previous CT test for first-year students, the correct answer rate was about 38%, so it is judged that the critical thinking ability has been improved in three years of study.

以前に実施した 1 年生対象の CT テストでは、正答率は 38%程度だったことから、3 年間の学修でクリティカル・シンキング能力は向上していると判断される。

Table 2. No. of Correct Answer

| Questions (CT element) | No ^{a)} |
|------------------------|------------------|
| 12 Tom&Ken | ⑥ 35 |
| 3 New heaven | ① 33 |
| 8 Hockey | ⑦ 33 |
| 11 Tom&Ken | ⑤ 30 |
| 1 Eggplant | ④ 29 |
| 15 Symotims | ④ 28 |
| 13 Mushroom | ③ 27 |
| 2 Fossil fuel | ⑤ 25 |
| 9 Europa | ② 25 |
| 18 Order | ① 24 |
| 14 Mushroom | ③ 24 |
| 6 Accident | ② 18 |
| 5 Sick school | ③ 17 |
| 22 Kangaroo | ⑤ 17 |
| 21 Kangaroo | ⑥ 17 |
| 17 Order | ⑦ 17 |
| 20 Kangaroo | ② 15 |
| 7 Noedwell | ⑤ 15 |
| 19 Order | ① 14 |
| 10 Baseball | ⑦ 14 |
| 16 Symotims | ④ 14 |
| 4 Influenza | ② 13 |
| 23 Kangaroo | ⑥ 13 |
| Total | 497 |

a) Number of students who answered correctly.

Table 3. Correct answer rate for each CT element

| CT Element | No students ^{a)} | Percentage ^{b)} |
|---|---------------------------|--------------------------|
| ① Identifying related information 関連情報の見極め | 71 (3) | 56% (52%) |
| ④ Categorical Thinking 分類的思考法 | 71 (3) | 56% (58%) |
| ③ Method & strategy 手法と攻略法 | 68 (3) | 54% (50%) |
| ⑥ Application & evaluation 適用と評価 | 65 (3) | 53% (55%) |
| ⑤ Perspectival thinking 見通しを持った思考法 | 87 (4) | 52% (49%) |
| ⑦ Deduction 推論 | 64 (3) | 51% (46%) |
| ② Evaluating reliability of information 情報の信頼性の評価 | 71 (4) | 42% (39%) |

a) Number of students who answered correctly. Values in parentheses are number of questions in each CT element. b) Percentage of students who answered correctly. Percentages in parentheses are for 2022.

問題例 Example of Question

Question 1. According to scientists, a fruit has seeds. A fruit develops from part of a plant's flower called an ovary. By comparison, a vegetable does not develop from a flower. A vegetable is a plant's root, stem, or leaf. According to scientists, is an eggplant a fruit or vegetable?

- a) An eggplant is a vegetable because you must cook it before you eat it.
- b) An eggplant is a fruit because it develops from a flower's ovary.
- c) An eggplant is a vegetable because its seeds are small enough to eat.
- d) An eggplant is a fruit because it grows above the ground.