

Chapter 5

Evaluation and Assessment to Improve Student Outcomes



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Abstract This chapter describes the requirements of the Ministry of Education on what they have defined as the primary challenges Japanese schools must address in developing, implementing, and sustaining a comprehensive approach to assessing and evaluating learning outcomes under the new course of study, and iterates how MEXT envisages schools might respond to these requirements. While evaluation and assessment ensure accountability, the primary focus of assessment and evaluation, as provided in the course of study, is on ensuring all actions improve student outcomes. Although elementary and secondary schools in Japan have made significant strides in assessing student learning outcomes, the Ministry identifies a number of challenges that must be addressed in order to fully realize the anticipated benefits of these efforts.

Keywords Assessment and evaluation · Curriculum management · University entrance examination · MEXT · Assessment for growth.

5.1 Introduction

This chapter¹ describes the requirements of the Ministry of Education, Culture, Sports, Science and Technology (MEXT) on what they have defined as the primary challenges Japanese schools must address in developing, implementing, and sustaining a comprehensive approach to assessing and evaluating learning² outcomes under the new course of study (COS), and iterates how MEXT envisages schools might respond to these requirements. While evaluation and assessment

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² This chapter uses the terms assessment and evaluation interchangeably, following the Japanese term *hyōka*, which encompasses both English terms.

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ensure accountability, the primary focus of assessment and evaluation, as provided in the course of study, is on ensuring all actions improve student outcomes. Although elementary and secondary schools in Japan have made significant strides in assessing student learning outcomes, MEXT identifies several significant challenges that must be addressed in order to fully realize the anticipated benefits of these efforts. This chapter discusses the requirements determined and the critique recognised by the Ministry of Education. More critical perspectives will be adopted in subsequent chapters.

Finally, issues of assessment are inevitably connected with the university examinations which determine for students their future learning and careers prospects via assessment. As such, this chapter examines issues related to the evaluation of students' learning outcomes from the perspective of university entrance examination reform, which is unfolding concurrently to the revision of the course of study. University entrance examinations have a great influence on assessment practices in primary and secondary schools. The qualities and abilities cultivated in primary and secondary education, that is, the learning outcomes achieved by learners, must be properly evaluated by university entrance examinations. Recent university entrance examination reforms have followed the new course of study in aiming toward a 'high school - university connection' (*kōdai setsuzoku*) and 'multifaceted and comprehensive evaluation' (*tamenteki sōgōteki hyōka*). This aims to ensure that the diverse qualities, abilities, and learning outcomes that students have acquired through subject learning, as well as various other activities in secondary school, are comprehensively evaluated, thereby connecting high school education with university education, and achieving a smooth transition. However, some policies that were set out as foundational to the university entrance examination reform have since failed. Under these circumstances, there is a sense of urgency in examining how to properly evaluate the qualities, abilities, and learning outcomes that students have acquired through primary and secondary education in university entrance examinations.

Based on the above observations, this chapter first considers the purpose of the revision of the new course of study and examines its key pedagogical concepts in relation to assessment and evaluation. After that, the qualities and abilities that primary and secondary schools are expected to develop in learners, that is, the characteristics of the learning outcomes that students are expected to acquire, will be clarified based on the course of study, related policy documents, and other materials. Finally, connections between the course of study, and university entrance examinations are discussed. This illuminates the contemporary challenges currently being addressed by MEXT, its recognition of critique, and the measures for improvement currently under discussion.

5.2 Background

The course of study is revised about once every ten years in anticipation of social changes such as globalization, computerization, and technological innovation. The latest (2017) course of study will be implemented from 2020 at elementary school, 2021 at junior high school and 2022 at high school.

The beginning sections of the course of study stipulate ‘general provisions’ regarding considerations for the entire curriculum. In addition to class hours these general provisions roughly define the goals and handling of contents. The 2017 curriculum included a greater amount of detail on classroom pedagogy and on assessment than previous revisions. The *Points for Revision of the Course of Study for Kindergarten, and Elementary and Junior High School* (MEXT, 2017c) lists the following three points as the basic concepts of this revision of the course of study.

- ‘Based on the Fundamental Law of Education, School Education Law and other laws and regulation, and based on the practice and accumulation of school education in Japan, [education] will further develop the qualities and abilities for children to enter future society (*miraishakai wo kirihiraku*). As a curriculum open to society (*shakai ni hirakareta kyōiku katei*) the vision for what qualities and abilities are required of children is shared with society and works to cooperate with society.
- While maintaining the framework of the current course of study and educational content that emphasizes the balance between the acquisition of knowledge and skills and the development of thinking ability, judgment ability, expressive ability, etc., the changes bolster the understanding regarding knowledge is further improved, and nurture solid academic ability.
- [School education] fosters a rich humanity and a healthy body by enhancing moral education, emphasizing experiential learning activities, and enhancing guidance on physical education and health.’ (MEXT, 2017c; underlining in original)

The idea of a ‘curriculum open to society’ is considered to be the basis of all important matters in the new course of study and it indicates the desire for schools and the public to create an improved society through better school education and to try to realize it by promoting cooperation, while clarifying how to learn the necessary educational content and what kind of qualities and abilities can be acquired at each school (MEXT, 2017e). In other words, the following three points can be cited as the characteristics of the ‘curriculum open to society’ (ibid.).

1. To create an improved society through better school education with a broad view of the current state of society and the world, and to share that goal with society through the curriculum.
2. To clarify and nurture in the curriculum what qualities and abilities are required for children who will create the future society, who will face and interact with society and the world, and who must open up their own lives.
3. In implementing the curriculum: utilizing the human and physical resources of regions and cooperating with social education that utilizes after school and

Saturdays, etc., and aiming for school education operated not exclusively by the school; to realize these aims while sharing and cooperating with society.

Within this framework, the course of study continues to use the term ‘zest for living’ (*ikiru chikara*) to determine an education which encompasses: (1) solid academic ability, (2) rich virtue, and (3) physical health. New to this revision is the separate definition of the ‘three pillars of qualities and abilities’ (*shishitsu nōryoku no mitsu no hashira*), which are important to understanding the philosophy of the new course of study in relation to previous revisions: (1) knowledge and skills, (2) abilities to think, judge, and express thoughts using appropriate language, and (3) an attitude orientated to learning (*manabi ni mukau chikara*) and humanity.

Active learning is presented through all documents as the key approach to pedagogy for the new course of study, as outlined in Chapter 4. It is emphasized that ‘independent, interactive and deep learning’ does not mean neglecting the acquisition of knowledge, and that it is necessary to develop qualities and abilities in a well-balanced manner. Importance is placed on ‘how to learn’. This might be realized by implementing ‘classes that give students the ability to work persistently with a given perspective’ (MEXT, 2016b, 2020b: 9) and encouraging children and students to ‘look back on their own learning, looking at what is to be learned next and [relating it to] life’. Simultaneously, the course of study aims to promote children’s and student’s interest in learning, collaboration between children, and dialogue with teachers, staff, and local people.

The new curriculum presents approaches to curriculum management that look to improve the quality of educational activities in a curriculum ‘open to society’ (MEXT, 2020a). This exhorts school administrators to ensure continuous improvement of a school’s education, for teachers to collaborate in achieving these aims and to cooperate with the community to improve school education. Curriculum management seeks the cooperation of the community by combining the educational resources of the school, such as people, goods, money, information, and time, with the cultural and material resources of the community. Aspirations for the evaluation of educational activities is also contained in the notion of curriculum management, giving weight in particular to the plan-do-check-action cycle, based on the actual conditions and characteristics of the school and the region. The course of study provides the following overview of curriculum management:

‘Each school should strive to properly grasp the actual conditions of students, schools, and communities and assemble the educational content necessary to realize the purpose and goals of education from a cross-curricular perspective, evaluate the implementation status of the curriculum and improve it, and improve the quality of educational activities in a systematic and planned manner based on the curriculum by securing the human or physical resources necessary for the implementation and improvement of the curriculum (hereinafter referred to as “curriculum management”)’. (MEXT, 2017a: 18)

Based on the above, an accompanying document (MEXT, 2017f) elaborates that curriculum management supports the requirements to: (1) assemble the contents of education necessary to realize the purpose and goals of education from a cross-curricular perspective, (2) evaluate the implementation status of the curriculum and

improve it, and (3) secure the human and physical resources for the implementation and improvement of the curriculum. It clarifies that these three points are just ‘means’, while the purpose of curriculum management is the ‘improvement of the quality of educational activities (classes) of each school in a systematic and planned manner based on the curriculum, which should be organized by appropriately grasping the actual conditions of children, schools, and communities’.

In addition to encouraging contributions from the local community, curriculum management exhorts schools to share curriculum plans with the community. The course of study provides that ‘when organizing the [school] curriculum, the educational goals of each school shall be clarified, and the basic policy regarding the organization of the curriculum shall be shared with the home and the community’ (MEXT, 2017a: 18–19).

Regarding the relationship between the three pillars and curriculum management MEXT provides that:

- ‘it is necessary to look over the goals and contents of specific subjects and class, and enhance cross-curricular learning in order to nurture, in particular, the qualities and abilities (language ability, information utilization ability, problem finding and solving ability, etc.) that form the basis of learning and the qualities and abilities that are required to respond to contemporary issues. It is also important to devise a balance between acquisition, use, and inquiry in a group of several classes such as a unit in order to enhance “proactive, interactive, and deep learning.”
- [it is necessary to] improve the quality of educational activities based on the curriculum and establish curriculum management to maximize the effect of learning as a whole through the appropriate allocation of educational content and time, the securing of the necessary human and physical resources, and improvement based on implementation status.’ (MEXT, 2017b, 2017c underlining in original)

In other words, one of the key goals of curriculum management is to enhance ‘independent, interactive and deep learning’.

Finally, curriculum management is framed within an assumption of decentralization, whereby the result of planning may vary—perhaps greatly—between schools or regions. The curriculum is built on the three pillars of (1) knowledge and skills, (2) abilities to think, judge, and express thoughts using appropriate language, and (3) an attitude oriented to learning. (The third pillar is sometimes expressed as ‘an attitude oriented toward independently engaging in learning’). However, the details—for example, which specific skills are considered central to the curriculum—is at the discretion of each school in line with the characteristics of the region, family, and children. Therefore, it is conceivable that differing evaluations will result in differing learning conditions. At the same time, even if the qualities and abilities are expressed similarly (for example, communication skills), the corresponding learning activities, contents, and evaluation methods may differ slightly or significantly between schools and regions. This variation and its implications will be a topic for research once the course of study has been implemented at all levels of schooling. In this revision of the course of study:

‘in order to nurture children’s development in knowledge, virtue, and body (“zest for living”) [...] all subjects and classes will be reorganized based on three pillars: (1) knowledge and

skills, (2) thinking ability, judgment ability, expressive ability, (3) ability toward learning, and humanity, etc.' (MEXT, 2017b, underlining in original)

As discussed in Chapter 4, the three pillars of qualities and abilities are intended to be utilized in society, which is undergoing drastic changes and will face unknown situations. In other words, in response to informationization and globalization, it is required that people must utilize their own qualities and abilities according to various situations and issues in each of the primary stated objectives of school education (solid academic ability, rich virtue, and physical health). As such, the object of assessment should be relevant to society. However, the object of assessment aimed for is the three pillars, with emphasis on the requirement that these three pillars are to be nurtured in a well-balanced manner. This is an important piece of context that has a great influence on the assessment methods discussed in the next section. In particular, the written test has long been the most common assessment tool and is often assumed to be the most efficient for school education, and even more so for entrance exams. However, this is not the mode best suited to assess all three pillars in a balanced way. Therefore, school education and entrance examinations are required to have measures that evaluate the second and especially the third pillars in a well-balanced manner. On the other hand, to properly evaluate the third pillar, 'ability toward learning', the question of how to tackle the issues related to validity and reliability is extremely important. This issue will be described in detail later.

5.3 Evaluation and Assessment of Learning Outcomes

This section details how the 'three pillars of qualities and abilities', overviewed above, should be evaluated according to the course of study. The final version of guidelines for assessment were developed and substantiated in 2019, more than a year after the promulgation of the course of study, but in advance of its actual implementation. The notice provides a description of the relationship between curriculum management and 'independent, interactive, and deep learning' with their respective evaluations.

'To integrate with instruction, evaluation plays an important role in steadily developing qualities and abilities in each subject through class improvement from the viewpoint of the "proactive, interactive, and deep learning" that is emphasized in the new course of study.' (MEXT, 2019a)

Numerous documents refer to 'the integration of teaching and assessment' or 'integrated instruction and evaluation' as an integral aspect of other requirements.

MEXT (2019a) summarizes the main points of improvement to assessment and evaluation as below:

1. In order to promote the integration of instruction and evaluation under the new course of study, which is organized under the three pillars of qualities and abilities of (1) 'knowledge and skills', (2) 'thinking capability, decisiveness, and expressiveness, etc.', and (3) 'ability to learn, humanity, etc.', the responsible

- authority³ is required to ensure the organization of assessment from each of three perspectives: (1) ‘knowledge and skills’, (2) ‘thinking, decision-making, and expression’, and (3) ‘attitude toward independently engaging in learning’. It must be kept in mind that some aspects of the ‘ability to learn, humanity, etc.’ can be assessed and graded while others can be assessed [only] through [subjective] individual evaluation (*kojin-nai hyōka*).
2. Regarding the ‘attitude to independently engage in learning’, assessment should ascertain whether students are trying to adjust their learning in a persistent effort toward acquiring knowledge, skills, thinking capability, decisiveness, and expressiveness, etc., according to the purpose of each subject [...].
 3. When using the results of assessment, it is important to improve subsequent teaching based on the basis of both [a] students learning evaluated from each perspective, which assesses students’ learning situation analytically in each subject and [b] [criterion-referenced] grading to assess the student learning each subject in reference to the whole curriculum.
 4. In particular, regarding the evaluation of each subject in high schools and special needs schools [...], it was clarified that both the assessment of the learning situation from multiple perspectives, which analytically assesses the learning situation, and the grading system that assesses this situation in a summative manner, should be conducted as a criterion-referenced procedure that evaluates the implementation status in light of the goals and contents of the subject set by the school according to the actual situation of the community and students, which are, in turn, based on the goals of each subject shown in the course of study.

The exception to criterion-referenced assessment is the subjective ‘individual evaluation’. This is defined by the Ministry for aspects of learning related to the students’ ‘humanity’, for which objective criterion-referenced assessment is deemed not appropriate. This subjective ‘individual evaluation’ is undertaken in reference to the individual student’s learning progress against that student’s performance at an earlier time. It is non-graded and seeks to develop the student’s strengths. The broader vision of assessment from elementary to senior high school is summarized in Fig. 5.1.

Furthermore, the document (MEXT, 2019a) lists points for improvement for the goal of enhancing assessment, given from multiple perspectives, and for reducing the burden on teachers. The commitment to assessment from multiple perspectives in high schools is of particular interest because of its implications for selections informed by university entrance examinations, which are described in the next section. A later report (MEXT, 2021) describes the improvements as follows.

‘It is necessary to positively evaluate the strong points and progress of students so that they can realize the significance and value of what they have learned. In addition, from the perspective of assessing the learning situation to realize the goals of each subject, it is necessary to evaluate the learning process and its results by devising evaluation scenes and methods while anticipating the unity of the content and time, such as the unit and its subject

³ The relevant board of education in the case of public schools.

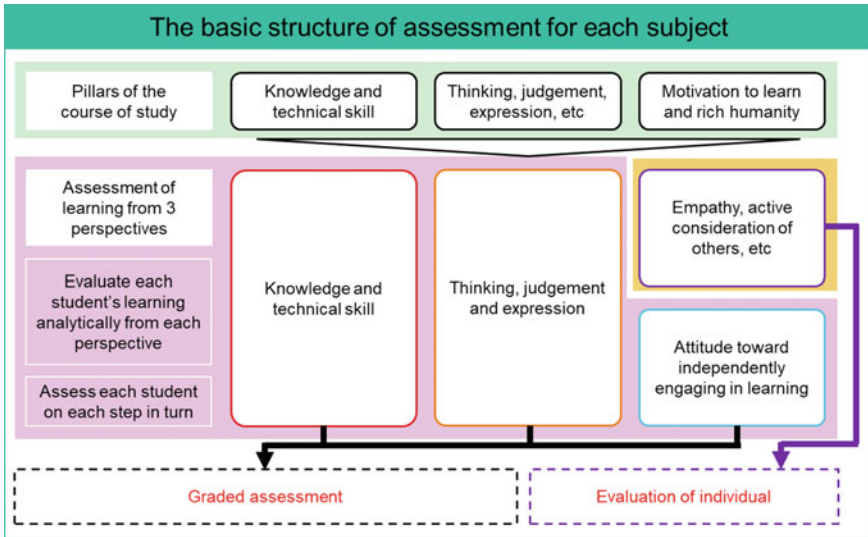


Fig. 5.1 The basic structure of assessment for each subject and classtime (NIER, 2019: 6)

matter, improving instruction and students’ motivation to learn, and using this to develop students’ qualities and abilities’.

Such exhortations move the focus away from summative assessment for sorting students and toward formative assessment to enhance instruction and to aid student growth.

Learning evaluation, along with learning instruction (classes), is positioned here as

‘the basis of schools’ educational activities and plays a central role in curriculum management, which aims to improve the quality of educational activities in a systematic and planned manner based on the curriculum.’ (ibid; underlining in original)

Further, in addition to the importance of formative assessment, this document states that ‘it is important to assess the various outcomes to instruct and support the development of learning according to students’ interests’.

Referring to various prior documents, the ‘attitude to independently engage in learning’ is elaborated from the perspective of evaluation:

‘The “attitude to independently engage in learning” should be evaluated in two aspects: (1) attempts to make persistent efforts to acquire knowledge, skills, thinking capability, decisiveness, and expressiveness, etc.; and (2) attempts to adjust one’s own learning while making the persistent efforts mentioned in (1). It is also necessary to evaluate the intentional aspect related to whether students are trying to learn while adjusting their own learning, such as understanding their own learning situation and making trial-and-error steps to proceed with learning.

This viewpoint is important in nurturing “ability to learn, humanity, etc.” and should also be given special importance for enhancing “individual optimal learning” and “collaborative learning.” (ibid.; underlining and bold in original).

The above points highlight that the ‘attitude to independently engage in learning’, which is closely related to the ‘ability to learn, humanity, etc.’, is emphasized in the learning evaluation, taken from the ‘three pillars of qualities and abilities’ that the course of study dictates should be nurtured.

5.4 University Entrance Examination Reform and Issues Related to the Evaluation of the Ability to Learn

One point that must be considered, along with the revision of the course of study, when analyzing the assessment of students’ learning outcomes is the concurrent reform of university entrance examinations. The *Final Report of the High School–University Connection System Reform Council* (MEXT, 2016a) is an important policy document that determined the direction of university entrance examination reform in response to the adoption of a ‘high school–university connection’ philosophy. The policy originated in the Fourth Report of the second Education Rebuilding Council (Kantei, 2013), deliberated by the CCE (MEXT 2014) and formulated into a plan (MEXT 2015), which then culminated in the 2016 report. In addition to the reform of high school education discussed above, this report recommends improvements to university selection based on ‘multifaceted and comprehensive evaluation’ from the perspectives of the three elements of academic ability (*gakuryoku no san yōso*), which are closely related to the three pillars of qualities and abilities discussed in the previous section. It aims to clarify the correspondence between this evaluation method and the abilities required of applicants for admission, amending the evaluation method and selection process based on these abilities, and to introduce new tests and descriptive, short-answer questions to replace the current Common Test for University Entrance Examinations (*Daigaku nyūshi sentā shiken*), administered by the National Center Test for University Admissions. In a plan published shortly before the final draft of the course of study, the aim of the high school–university connection was stated:

‘to reform high school education, university education, and the selection of university entrants in an integrated manner. In the selection of university entrants, it aims to evaluate the abilities of students nurtured through high school education from multiple perspectives, and in university education, to further improve the outcomes of high school education. In high schools, it is necessary to organize, implement, and improve the curriculum and to enhance guidance and evaluation while facilitating the prospect of a high school–university connection.’ (MEXT, 2016b)

A later announcement in response to the report’s recommendations provided that:

‘improve the selection of entrants at each university through a multifaceted and comprehensive evaluation of the “three elements of academic ability” (“knowledge and skills”, “thinking capability, decisiveness, and expressiveness”, and “attitude to learning independently and collaboratively with diverse people”), based on the policy of acceptance of entrants in accordance with the policy of graduation certification and degree conferral and the policy of curriculum organization and implementation.’ (MEXT, 2017g)

In light of the above, *University Admissions Selection Implementation Guidelines 2021* stipulates that the:

‘selection of entrants should be implemented based on the entrance examination method (hereinafter referred as “general selection” (*ippansenbatsu*) that evaluates and judges the abilities, motivation, aptitude, etc., of applicants in a multifaceted and comprehensive manner, using the contents of school reports, academic ability tests, essays, [...] and materials provided by the applicants themselves, etc.’ (MEXT, 2020b, 2020c: ch3).

‘Materials provided by the applicants themselves, etc.’ may include ‘essays, interviews, debates, group discussions, presentations, records of various competitions and awards, and materials and interviews regarding students’ outcomes in inquiry-based learning during the period for integrated study (*sōgōteki na gakushū no jikan*), etc.’ (ibid.)

The above points are in line with the intended purpose of the revision of the course of study and the comprehensive evaluation of diverse qualities, abilities, and learning outcomes that have been examined thus far in this chapter. Based on the implementation guidelines, the Common Test for University Admissions (*Daigaku Nyūgaku Kyōtsū Tesuto*) was established in January 2021 in place of the former National Center Test for University Admissions.

Regarding the relationship between learning evaluations and university enrolment selection, MEXT (2019a) states that ‘the evaluation of learning is conducted to improve learning and teaching, not only for the purpose of admissions selection. Therefore, when using the results of the evaluation of learning for admissions selection, it is important to take appropriate measures that consider the characteristics of learning evaluations’. In addition, regarding the improvement of university admissions selection, the notice states that ‘the contents of the 2025 University Admissions Selection Implementation Guidelines for students who have studied under the new High School course of study will be announced in 2021’. According to a report entitled *the Ideal Method of Learning Evaluation for Children*, the following points should be kept in mind when considering the notice:

- ‘In particular, in terms of the various activities conducted outside of school, each university should consider how to evaluate these activities by appropriately combining a report prepared by each school, the materials provided by the applicant, and the accompanying declarations to ensure that each student is evaluated in a multifaceted and comprehensive manner based on each university’s admission policy, without being overly dependent on the school reports.
- From the perspective of the work style reform in schools, school reports created based on the cumulative guidance record (*shidōyōroku*) should also be examined after organizing the information required for admissions selection, including the use of the evaluation of the learning situation by viewpoint.’ (MEXT, 2019a, 2019b).

The above notice describes ‘multifaceted and comprehensive evaluation’, and notes that it should be ‘appropriately combined’. This stipulation arose from reflection on the fact that when traditional entrance exams were written, test-centered evaluations emphasized the knowledge learning aspect primarily. For example, the *Concept of the Revision of the course of study* states that:

‘in high school education, it is an issue that the memorization of trivial factual knowledge is considered in the selection of university entrants. In order to overcome such an issue, a high school–university connection reform, including the arrangement of important terms, will be promoted.’

This document also states that ‘learning content will not be reduced’ during the ‘establishing of new subjects and reviewing of goals and content based on the qualities and abilities required in the new era’ (MEXT, 2017d).

However, the problem with ‘multifaceted and comprehensive evaluation’ is the evaluation of the third pillar, that is, the ‘ability to learn, humanity, etc.’ (independence, collaboration, diversity). As mentioned above, the evaluation of the ‘attitude to independently engage in learning’ is positioned as an important element in the evaluation of learning, and the ‘ability to learn, humanity, etc.’ is closely related to the viewpoint of this evaluation. However, it is difficult to conduct the evaluation ensuring validity and reliability when selecting university entrants since it is technically difficult to evaluate attitudes, for example, when developing evaluation scales (see Chapter 11). Relatedly, it is also difficult to unify the evaluation criteria among teachers, schools, and regions, and to solve the problems of fairness and equity in the selection of university entrants, especially in light of decentralization and the expectation of school and regional diversity under the ‘curriculum open to society’.

MEXT considers it important to evaluate the qualities and abilities that must be assessed. The ‘JAPAN e-Portfolio’ initiative was established as a measure to do so. The e-Portfolio was an online system that allowed students to manage their own learning activities and achievements, while also allowing universities to use the information when selecting entrants. It was conceived as a tool for evaluating the ‘three elements of academic ability’, and in particular, the ‘attitude to learn independently and collaboratively with diverse people’. However, the operating license was revoked in 2020. The reason given by MEXT was that it was not possible to secure enough participant universities to adopt the system, and that there were restrictions on business operations (MEXT, 2020c, 2020d). If this system had been fully realized, it would have been possible for participating universities to obtain information related to the evaluation of the ‘attitude to learn independently and collaboratively with diverse people’ or the ‘ability to learn, humanity, etc.’ in a common format. However, it is expected that it will be difficult to actively promote the evaluation of these qualities and abilities during the selection of university entrants (especially in general selection) in the future because of the system’s failure.

Furthermore, descriptive (short-answer) questions in the Common Test for University Admissions, which has great significance for the evaluation of the second of the ‘three elements of academic ability’ and of the ‘three pillars of qualities and abilities’, ‘thinking capability, decisiveness, and expressiveness’, were initially intended to be included for two subjects—English and Mathematics, in January 2021. However, the introduction of these questions was postponed due to problems related to the objectivity of the scoring. Even before that, the use of the results of the English qualification/certification examinations, operated and implemented by various private companies, which was planned to be introduced in order to assess and evaluate the four English language skills, as opposed to only reading, was postponed. The

postponement of these policies caused confusion in the educational field and had a great impact on the evaluation of the diverse qualities and abilities and the learning outcomes of the students that the new course of study aimed to realize.

5.5 Conclusion

This chapter examined the assessment and evaluation of student learning outcomes under the new course of study from the perspective of the qualities and abilities (three pillars) that this course of study aims to nurture in schools. MEXT sees it as necessary to practice the evaluation of diverse qualities and abilities, in various teaching and learning activities at school, based on the ‘three pillars of qualities and abilities’ stipulated by the new course of study, which underpin the three elements of assessment of knowledge and abilities (Fig. 5.1). Furthermore, the policy of a ‘high school–university connection’ has been promoted, and the development of the ‘three elements of academic ability’ and the practice of ‘multifaceted and comprehensive evaluation’ are important policy issues. How each school positions the evaluation of qualities and abilities, including the ‘ability to learn’, in its curriculum management is considered critical, as it implements continuous assessment and evaluation of students’ learning outcomes through the PDCA cycle. Considered equally critical is how each university conducts its selection based on a well-balanced evaluation of the three elements of academic ability, including ‘independently engaging in learning’. These considerations have a great influence on whether the revision of the course of study and the reform of the university entrance examination system will lead to a substantial improvement in the evaluation of students’ learning outcomes.

However, some important facets of the university entrance examination reform, which is closely connected to revisions of the course of study, have failed. The introduction of descriptive (short-answer) questions, which were thought to play an important role in the evaluation of ‘thinking capability, decisiveness, and expressiveness’, and the recognition of private English certification were postponed. Moreover, the ‘JAPAN e-Portfolio’, which was believed to play an important role in improving school reports and evaluating ‘independence’, was discontinued after a very short period of operation. This is important because the requirements of the university entrance examination inevitably shape student and school practices. Yet the new course of study is being fully implemented at all educational stages without full alignment with the university entrance examinations.

It is also expected that various practices for assessing learning outcomes will be developed among teachers, schools, universities, and regions in the future. In this regard, the relatively imprecise definitions of the ‘three pillars of qualities and abilities’ and the closely related ‘three elements of academic ability’ can be seen as both a weakness and as a strength. Development of practices on the ground is partly welcomed, considering that various efforts can be implemented according to the characteristics (strengths) and policies of each school/university. Otherwise, there would be a risk of diminishing the original purpose and significance of the reform,

which adopts a respect for decentralization and diversity of provision. Nonetheless, such a system will produce a mixture of wheat and chaff, which is questionable from a quality assurance perspective. Differences between schools and between universities to evaluate differing qualities and abilities may also cause confusion among outside observers, such as guardians.

However, the objectives related to decentralization needs to be balanced with the fundamental question of the validity and reliability of evaluations, which is an important consideration when evaluating various qualities, abilities, and learning outcomes. For example, a problem of validity will arise if only a written test is used (or the weight given to the written test is excessively high) during selection when judged against the objective of assessing various qualities and abilities, including not only knowledge but also ‘thinking capability, decisiveness, and expressiveness’, ‘ability to learn’, and ‘independence, etc.’ The descriptive (short-answer) questions and ‘JAPAN e-Portfolio’ were the key policies that aimed to solve this problem. However, these policies were not realized because the reliability (objectivity) of evaluation caused consternation and were reconsidered at a late stage in the process. Consequently, the validity and reliability of evaluation are in a trade-off relationship in the university entrance examination. Thus, the debate can be reframed as one balancing validity with reliability. Within this debate, while it can be said that ‘the weight of the written test should not be excessively high’, there is no objective standard of excessiveness. Therefore, the key to the success or failure of any reform is how to secure ‘legitimacy’.

To nurture the three required qualities and abilities in a well-balanced manner and realize an authentic ‘high school–university connection’, information on various existing evaluation practices should be collected. Much pedagogical innovation occurs in schools designated for curriculum action research (*kyōiku katei kenkyū shiteikō*), and guidance is provided by the Ministry of Education. A database of such action research should also be created, or the current interface should be updated to a form that is easier to use than the current iteration. At this time, what is important is the correspondence between individual qualities/abilities and specific teaching/learning activities and evaluation contents/standards. A system that allows teachers, schools, and universities to cross the boundaries of institutions and educational stages, select and obtain information according to their own circumstances and characteristics, and use it to improve educational practices will be a necessity in the future.

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