The Effect of Localized International Baccalaureate Diploma Programme on Students’ Motivation and Self-Regulation

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Abstract

The purpose of this study is to explore the effect of the localized International Baccalaureate Diploma Programme (IBDP) in China with the examination on self-regulation and motivation between localized IBDP and general Chinese high school program. A total of 50 students from a public school in Shanghai will participate in the study. The survey will be given out 3 times during the first 6 months of their first academic year in high school, followed with semi-structural interviews at the last time of survey in order to explore students’ perception of their programs. The results may disclose the effect of localized IBDP on students’ motivation and self-regulation, and may also give suggestions for the localization of international programs in the future.

Keywords: International Baccalaureate Diploma Programme, localized international curriculum, motivation, self-regulation
Introduction

China has been enduring a growing demand of international curriculums for high school students who want to apply for a university abroad, especially in metropolitan cities like Shanghai. The Shanghai Municipal Education Commission has included the “pilot work of international curriculums in high schools” in the 2010-2020 Shanghai Medium- and Long-Term Educational Reform and Development Plan. However, according to the policy (Hu Jiao Wei Ji [2013] No. 37), the public high schools that wanted to integrate international curriculums such as IBDP, AP (Advanced Placement) or A-LEVEL (General Certificate of Education Advanced Level) should submit the whole program plan for review and make adjustment to text books and learning contents when necessary. What’s more, the international program of public high school must include the local subjects of Chinese Literature, Politics, History and Geography, with emphasis on the core socialist values, in order to develop students’ international competencies as well as to promote curriculum revolution (Tang, 2017; Liu, 2015). Therefore, many public high schools in Shanghai began to explore strategies for localized transformation of International curriculums, especially the localization of International Baccalaureate Diploma Programme (IBDP). In 2014 the Shanghai Municipal Education Commission announced 21 high schools that would pioneer the “integrated international curriculum program”, among which 9 schools had transformed and localized IBDP curriculums.

Having been developed for 3 decades, self-regulation continuously receives high attention and is considered as a process to enhance learning outcomes as well as
learners’ performance (Zimmerman, 2000; Pintrich, 2004). Researches have also shown positive relationship between the use of self-regulated learning strategies and academic outcomes (Boekaerts, Pintrich, & Zeidner, 2000; Pintrich, 2004; Zimmerman, 2008). Nowadays college students are reported of lack of self-monitoring (Lan, 2005) and self-regulated abilities (Peverly, Brobst, Graham, & Shaw, 2003). Thus, promoting motivation and self-regulation to improve students’ academic achievement and better prepare them for higher education has become one of the important tasks for high schools.

Since IBDP’s curriculums emphasize students’ motivation and self-regulation, and the abilities of self-regulation and metacognition are emphasized in the curriculum guidelines in both Western and Asian educational systems (Li, 2012), the examination on the effect of localized IBDP in Shanghai from the perspectives of motivation and self-regulation might provide useful recommendations for the localization of international curriculums in general, and give insights on the development and revolution of current Chinese general education.

**Literature Review**

**International Baccalaureate Diploma Programme**

The International Baccalaureate’s (IB) programs offer an education that focus on teaching students to think critically and independently, and how to inquire with care and logic (IB, 2018a). Its major objectives are to “develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through
intercultural understanding and respect” and “to encourage students to become active, compassionate and lifelong learners” (IB, 2015c). To align with these goals, it is essential to implement student-centered and constructivist learning approaches which supports “whole-person” development (Li, 2012). Self-regulation process is critical for both young and old to constantly self-refine their skills and knowledge, developing life-long learning skills (Zimmerman, 2002), which corresponds with the objective of IB.

As the first established IB program, the IBDP aims to prepare students for success in higher education and beyond (IB, 2015a). Approximately 72% of students taking the DP in China attended one of the world’s top 500 universities (IB, 2018b). IBDP includes 3 mandatory core curriculums which aim at broadening students’ educational experience and challenging their application of knowledge and skills: Theory of knowledge (TOK), Extended essay and Creativity, activity, service (CAS). In the TOK course students reflect on the nature of knowledge and on how we know what we claim to know. The Extended essay is an independent, self-directed piece of research, finishing with a 4,000-word paper. And CAS requires students to design, investigate and complete a project during which they could develop comprehensive competencies. The three mandatory core curriculums provide opportunities to develop the attributes of the IB Learner Profile which requires students to be thinkers, inquirers and reflective (IB, 2008).

Motivation

A commonly accepted definition described motivation as “the process whereby
goal-directed activities are instigated and sustained” (Pintrich & Schunk, 1996).

Schunk has promoted a motivated learning model: students that differ in their self-efficacy to acquire the knowledge and skills are affected by personal factors (e.g., goal setting) and environmental factors (e.g., teacher feedback) while they are working, and the perception of progress with higher self-efficacy enhances motivation (Pintrich & Schunk, 1996). IB learner profile stresses the importance of inquiry, which expects students to develop their natural curiosity together with active enjoyment of learning, so that students will be more motivated to learn. It also requires students to be risk-takers who should be able to face unfamiliar situations with courage and forethought. IB learners are brave and articulate in defending their beliefs (IB, 2008), because they have an appropriate judgement of their capabilities and expectancy of outcomes. Students of IB Primary Years Programme have a continuously growing self-efficacy in mathematics (Lau, Kitsantas, Miller, & Rodgers, 2018), for they kept practicing solving mathematics problems and receiving guidance and feedback from teachers and peers. Compared with students of general education, students of IBDP in the same school reported higher grade point averages and academic self-efficacy (Shaunessy, Suldo, Hardesty, & Shaffer, 2006).

Regulation of motivation would include attempts to regulate various motivational beliefs, including goal orientation, self-efficacy, perceptions of task difficulty, task value beliefs and personal interest in the task (Pintrich, 2004). The DP places an emphasis on criterion-related assessment, opposed to norm-referenced (IB, 2015c), which means that DP expects students to master knowledge and skills instead of to
perform better than others. DP students are very capable of self-assessing the progress that they make towards mastery, generating more self-confidence and intrinsic motivation (IB, 2015a). In addition, through CAS, one of IBDP’s core curriculums, students are involved with a range of people with affective and formal relationships, which is required to support motivation. Students’ motivation stems from the mandatory nature of CAS as well as their own enjoyment in the activities (Hayden, Hemmens, McIntosh, Sandoval-Hernández, & Thompson, 2017). Thus, IBDP students are more likely to see a strong link between their effort and the outcome. With the regulation of goals and high self-efficacy, IBDP expects to keep students motivated.

**Self-regulation**

Self-regulation of learning and performance refers to the processes whereby learners personally activate and sustain cognitions, affects, and behaviors that are systematically oriented toward the attainment of personal goals (Zimmerman & Schunk, 2011). It not only includes students’ metacognitive strategies for planning, monitoring and modifying their cognition, but also requires students to be motivated to use the strategies (Pintrich, 1990). Thus, self-regulation is closely related to cognitive and metacognitive strategies, for example, organization, critical thinking, etc. IB Programs emphasize students’ independent thinking, cultural awareness and creative thought (Larson & Kurtyka, 2017), which is supposed to better foster critical metacognitive awareness and skills leading to improved postsecondary readiness (Conley, McGaughy, Davis-Molin, Farkas, & Fukuda, 2014). From the beginning DP has adopted a broadly constructivist and student-center approach, and has emphasized
teaching based on inquiry as well as the development of students’ approaches to learning (ATL) skills, including thinking skills, social skills, communication skills, self-management skills and research skills. By developing ATL skills and attributes of the learner profile, DP students can become self-regulated learners (IB, 2015b). In a study of college readiness of students’ in IB programs (Larson & Kurtyka, 2017), metacognition was one of prominent habits of mind and was presented particularly in the TOK course of IBDP. With TOK course, students completing their second year of the DP reported a higher likelihood of using an array of critical-thinking skills (Cole, Gannon, Ullman, & Rooney, 2014).

Besides cognitive and metacognitive strategies, self-regulation also emphasizes resources management strategist, including time management, effort regulation, peer learning and so on. The other two core curriculums of IBDP require resource management strategies of self-regulation. Extended Essay expects students to engage in self-directed knowledge enhancement (Munro, 2003), because they have to investigate a topic of special interest to them and related to their DP subjects, and to formulate research questions as well as to develop arguments. And through CAS students should design, plan and finish a project, during which they should not only regulate their time, environment and other resources, but also help and learn from each other to work as a team.

**Research questions**

While a majority of researches on IBDP’s students’ performance and outcomes have been conducted all over the world, there is a lack of empirical research on
students’ motivation and self-regulation of IBDP in China. Moreover, the Shanghai Municipal Education Commission has been promoting localized IBDP in public high schools recently, with the objective of providing diversity curriculums to students, expanding their views as well as developing current Chinese curriculums and educational systems. Therefore, this study is aimed at exploring the effect of the localization International Baccalaureate Diploma Programme (IBDP) in China through the examination on motivation and self-regulation between localized IBDP program and general Chinese high school program, with the following research questions:

1. Is there any significant difference in motivation of students in localized IBDP and general high school program?
2. Is there any significant difference in self-regulation of students in localized IBDP and general high school program?
3. What are students’ perceptions of localized IBDP and general high school program in perspective of promoting their motivation and self-regulation?

Methodology

Participants

Approximately 50 full-time high school students (25 male and 25 female) from Shanghai will participate in this research. Students are enrolled in the same public high school, but in two different programs. One group of 25 participants are from localized IBDP class while the other 25 participants are from a class in general
education. The class in general education will be selected according to the students’ average enrollment score which should be the closest to that of IBDP class among those of all the classes. In addition, most of the participants have no previous experience in IB programs.

**Instruments**

The first part of the survey is about basic information of participants. Participants will write their student numbers instead of their names. They will also be asked if they are willing to take part in an interview after the third time of the survey.

The motivated strategies for learning questionnaire (MSLQ; Pintrich, Smith, Garcia, & McKeachie, 1993) will be utilized for the second part of the survey, including the motivation scales and learning strategies scales, because it provides a reliable assessment of motivation and learning strategies of self-regulation among students. The motivation scales contain subscales of intrinsic goal orientation, extrinsic goal orientation, control beliefs and self-efficacy for learning. Subscales of task value and task anxiety aren’t included because the items are focused on a specific task or a certain course, while our survey is about the whole high school program. The learning strategies scales contain subscales of cognitive and metacognitive strategies and resource management strategies.

Items were slightly changed to best represent the situation of both programs. For example, the original wording “It is my own fault if I don’t learn the material in this course” was changed into “It is my own fault if I don’t learn the material in the courses”; the original wording “I want to do well in this class because it is important
to show my ability to my family, friends, employer, or others” was changed into “I want to do well in this class because it is important to show my ability to my family, friends or others”. Five-point Likert scales were used, in which 1 indicated *not at all true of me* and 5 indicated *very true of me*.

**Procedures**

The researcher will visit the class with the permission of the school administrator, introducing the purpose of the study, research procedures, possible risks and contact information to students, and will then give out the questionnaire for students. The survey will be conducted for three times. The first time will be at the beginning of the semester; after 3 months the second time of the survey will be conducted before the end of the first semester; the third time will be conducted after another 3 months, which will be at the beginning of the second semester. For each time students who has completed the questionnaire will be given a small gift. Participation in the research will be completely voluntary and no penalty will be given for nonparticipation. Students are able to quit the survey at any time.

MSLQ will be provided in both English version and Chinese version, and participants can choose the one that they are more accustomed with.

The data of the three times of survey will be collected to compare the growth of motivation and the usage of learning strategies between two classes. The scores will be added as the measurement of SRL abilities. Then in total eight students, two with high SRL scores and two with low SRL scores from each group, that are willing to be interviewed, will be selected to conduct semi-structural interviews at the second
semester, in order to understand their perceptions about their high school programs in perspectives of motivation and self-regulation. Interviews will be conducted at school, individually and face-to-face under the permission of school administrators, and will last about 30 – 60 minutes.
Appendix A. Questionnaire

I am a graduate student of Syracuse University and I am conducting a research on the effect of localized IBDP in Shanghai. I would like to invite you to take the survey which takes about 20 minutes, and your responses are completely anonymous. Your input is really appreciated! Thank you!

Your student number: ____________________

Your age: ___________ Your gender: □ Male □ Female □ Other

Did you have any previous learning experiences in IB programs? □ Yes □ No

Are you willing to participate a 30-minitues-interview related to this research 6 months later? □ Yes □ No

Motivation-Intrinsic Goal Orientation

1. In a class like this, I prefer course material that really challenges me so I can learn new things.

2. In a class like this, I prefer course material that arouses my curiosity, even if it is difficult to learn.

3. The most satisfying thing for me in this course is trying to understand the content as thoroughly as possible.

4. When I have the opportunity in this class, I choose course assignments that I can learn from even if they don’t guarantee a good grade.

Motivation-Extrinsic Goal Orientation
5. Getting a good grade in this class is the most satisfying thing for me right now.

6. The most important thing for me right now is improving my overall grade point average, so my main concern in this class is getting a good grade.

7. If I can, I want to get better grades in this class than most of the other students.

8. I want to do well in this class because it is important to show my ability to my family, friends or others.

Motivation-Control of Learning Beliefs

9. If I study in appropriate ways, then I will be able to learn the material in the courses.

10. It is my own fault if I don’t learn the material in the courses.

11. If I try hard enough, then I will understand the course material.

12. If I don’t understand the course material, it is because I didn’t try hard enough.

Motivation-Self-Efficacy for Learning and Performance

13. I believe I will receive an excellent grade in this class.

14. I'm certain I can understand the most difficult material presented in the readings for the course.

15. I'm confident I can understand the basic concepts taught in the course.

16. I'm confident I can understand the most complex material presented by the instructor in the course.

17. I'm confident I can do an excellent job on the assignments and tests in the course.

18. I expect to do well in this class.

19. I'm certain I can master the skills being taught in this class.
20. Considering the difficulty of this course, the teacher, and my skills, I think I will do well in this class.

*Learning Strategies-Cognitive and Metacognitive Strategies*

21. When I study, I practice saying the material to myself over and over.

22. When studying, I read my class notes and the course readings over and over again.

23. I memorize key words to remind me of important concepts in this class.

24. I make lists of important terms for the course and memorize the lists.

25. When I study for this class, I pull together information from different sources, such as lectures, readings, and discussions.

26. I try to relate ideas in this subject to those in other courses whenever possible.

27. When reading for this class, I try to relate the material to what I already know.

28. When I study for this course, I write brief summaries of the main ideas from the readings and the concepts from the lectures.

29. I try to understand the material in the class by making connections between the readings and the concepts from the lectures.

30. I try to apply ideas from course readings in other class activities such as lecture and discussion.

31. When I study the readings for this course, I outline the material to help me organize my thoughts.
32. When I study for this course, I go through the readings and my class notes and try to find the most important ideas.

33. I make simple charts, diagrams, or tables to help me organize course material.

34. When I study for this course, I go over my class notes and make an outline of important concepts.

35. I often find myself questioning things I hear or read in the courses to decide if I find them convincing.

36. When a theory, interpretation, or conclusion is presented in class or in the readings, I try to decide if there is good supporting evidence.

37. I treat the course material as a starting point and try to develop my own ideas about it.

38. I try to play around with ideas of my own related to what I am learning in the course.

39. Whenever I read or hear an assertion or conclusion in this class, I think about possible alternatives.

40. During class time I often miss important points because I'm thinking of other things. (REVERSED)

41. When reading for this course, I make up questions to help focus my reading.

42. When I become confused about something I'm reading for this class, I go back and try to figure it out.
43. If course materials are difficult to understand, I change the way I read the material.

44. Before I study new course material thoroughly, I often skim it to see how it is organized.

45. I ask myself questions to make sure I understand the material I have been studying in this class.

46. I try to change the way I study in order to fit the course requirements and instructor's teaching style.

47. I often find that I have been reading for class but don't know what it was all about. (REVERSED)

48. I try to think through a topic and decide what I am supposed to learn from it rather than just reading it over when studying.

49. When studying I try to determine which concepts I don't understand well.

50. When I study for this class, I set goals for myself in order to direct my activities in each study period.

*Learning Strategies-Resource Management Strategies*

51. I usually study in a place where I can concentrate on my course work.

52. I make good use of my study time for the course.

53. I find it hard to stick to a study schedule. (REVERSED)

54. I have a regular place set aside for studying.

55. I make sure I keep up with the weekly readings and assignments for the course.
56. I attend class regularly.

57. I often find that I don’t spend very much time on the course because of other activities. (REVERSED)

58. I rarely find time to review my notes or readings before an exam. (REVERSED)

59. I often feel so lazy or bored when I study for this class that I quit before I finish what I planned to do. (REVERSED)

60. I work hard to do well in this class even if I don’t like what we are doing.

61. When course work is difficult, I give up or only study the easy parts. (REVERSED)

62. Even when course materials are dull and uninteresting, I manage to keep working until I finish.

63. When studying, I often try to explain the material to a classmate or a friend.

64. I try to work with other students from this class to complete the course assignments.

65. When studying, I often set aside time to discuss the course material with a group of students from the class.

66. Even if I have trouble learning the material in this class, I try to do the work on my own, without help from anyone. (REVERSED)

67. I ask the instructor to clarify concepts I don’t understand well.

68. When I can’t understand the material in the course, I ask another student
in this class for help.

69. I try to identify students in this class whom I can ask for help if necessary.
Appendix B. Interview Guideline

1. What has been your most significant learning experience in IBDP/ general high school? (Please describe in details)
   a) What impact is that having or had on you?
   b) Are there any changes in your opinions/behaviors/habits/…?
   c) (ONLY FOR IBDP) What’s the most different part between IBDP and general Chinese school system and curriculums?

2. What are or were the challenges of being an IBDP/ a general high school student?
   a) What do you think are the reasons for the major challenge?
   b) How do you feel about that challenge?
   c) Please describe your experience about overcoming one challenge or difficulty in your high school.

3. When do you usually do your homework, which subject do you begin with? Why?
   a) Are you interested in that subject? Why?
   b) Which subject do you like least? Why?
   c) How do you arrange your time for doing homework and doing other things?
Reference


Retrieved at Nov. 22 2018.


