

Part B: Project Summary

2014/0138 (Revised)

Project Title:

Flipped Classroom: Identification of Successful Factors and Establishing a Sharing Platform of Good Practices

Name of Organisation: Educational Psychology Dept, The Chinese University of Hong Kong

(1) Goals: We learn, accumulate, make available and share through a professional e-platform the good practices, courseware, and relevant software of flipped classroom from around the world and in particular neighbouring Asian/Chinese communities for Hong Kong teachers.

Objectives:

- (i) Experience around the world and in particular neighbouring Asian countries/cities will be gathered and a platform of good practices will be constructed.
- (ii) Teachers in 10 schools will be invited to use and comment on the platform so as to polish and improve the content.
- (iii) The eventually built platform will be opened for public access to share experience in flipped classroom teaching.

(2) Targets: Expected Number of Beneficiaries:

Though, all teachers at all levels may use the open website, we will focus on the 53000 primary and secondary school teachers. Indirectly, we will benefit the 1 million of students in Hong Kong.

(3) Implementation Plan:

- (i) **Duration:** 18 month project
- (ii) **Process/Schedule:** in the first 10 months, we will accumulate good practices and construct the platform; in the last 8 months, we will try-out and refine;
- (iii) **Collaboration with other parties/partners:** will provide the technical support; while other professors in the faculty of education, University will provide other professional support.

(4) Products:

(i) **Deliverables, Outcome:** In brief, we would construct a platform to host the collection of teaching materials (reading, videos, case studies), good practices for flipped classroom implementation. Teachers can use the material to understand ways to efficiently and effectively conduct flipped classroom.

(ii) **Dissemination of Deliverables / Outcomes:** We will use news media, seminars, talks, and social media to promote our platform.

(iii) **Commercialization potential of deliverables / outcomes:** Similar web sites around the world are ultimately developed into a form supported by venture capital funds or the government. Websites for primary and secondary schools are generally regionalized following local curricula and using regional examples. In any case, the platform could still be made available as a university project to the public at an extremely low maintenance cost.

(5) Budget:

Total budget requesting: HK\$600,000 (a) Staff cost \$274,500, (b) Equipment \$8,500, (c) Services \$0, (d) Work \$0, (e) General Expenses \$310,400, (f) Contingency \$6,600.

(6) Evaluation:

(i) Performance indicators: The key indicator of success would be their satisfaction of the material deposited there.

(ii) outcome measurements: Teachers' satisfaction ratings on several domains will be surveyed through questionnaires: (i) basic philosophy on flipped classroom, (ii) general procedures to flip, (iii) techniques to prepare videos/other materials, (iv) interactive classroom strategies, (v) references to other sites.

Part C : Project Details

2014/0138 (Revised)

Flipped Classroom: Identification of Successful Factors and Establishing a Sharing Platform of Good Practices (翻轉課堂：尋找成功要素及建立良好策略分享平台)**I. Needs Assessment and Applicant's Capability**

The project falls directly on the Priority Theme “Using e-Learning (IT) for Effective Learning” and indirectly on “Catering for Students’ Learning Diversity” and “Teacher Development and Wellness for Promoting Schools as Learning Organisations”.

Significance of Flipped Classroom

Flipped Classroom has gained tremendous impact around the world. Though the movement started a few years ago in the USA and other countries, actually the basic philosophy, pedagogy and teaching strategies are not new. The term “flip” has been attributed to Lage, Platt, and Treglia (2000, “inverting the classroom” to facilitate differentiated instruction) and coined by Baker (2000, in his conference presentation which is much closer to the flipped classroom concept used more recently, his presentation title was: The ‘Classroom flip’: Using web course management tools to become the guide by the side). The term “flipped classroom” has been further established and popularized by two Woodland Park, Florida high school chemistry teachers Jonathan Bergmann and Aaron Sams.

Flipped classroom is just a re-emphasis of several good teaching strategies: ask students to prepare before class, use more discussion, hand-on interactive activities in class, reduce the time on direct instruction in class, and allow students plenty of chances in helping one another. It is called flip because students do the preparation (e.g., seeing video, reading material) on introductory content before class, thus leaving more time in class for interactive activities on more difficult parts of the content. In recent years, distant mode of learning including massive open online course (MOOC) such as Khan Academy, Coursera, edX have flourished due to the availability of IT facilities and an increase in internet band width. Thus, flip pedagogy has been widely applied to primary, secondary schools and universities, across almost all academic subjects.

The positive effects of flipped classroom have been demonstrated through various studies. For example, in a survey on teachers (Hamdan, McKnight, McKnight, & Afrstrom, 2013), 66% of them reported students’ test scores increased, 80% of them felt students’ attitude towards learning improved, while 90% of them enhanced their job satisfaction.

Driscoll III’s (2012) dissertation also showed overwhelming support for flipped classroom. His student participants felt they had choices regarding what learning tasks they engaged in (69%), had greater opportunity to work at their own pace (79%), had more choice on demonstrating their learning (76%), and were more likely to engage in collaborative decision making with other classmates (66%). The question as posed by Driscoll is “Few would dare to argue that we must resist such change and limit all students learning to what occurs within the walls of the classroom; the debate now turns to how we can best utilize these online learning environments”.(p.29)

Experiences in Neighbouring Cities/Countries

As have been discussed earlier, flip is not a special teaching pedagogy, though the emphasis of the “flipped classroom” concept may work much better with the help of modern IT technology. This emphasis started in the USA in late 2000’s, and has also been picked up by various Asian countries, such as Singapore, Taiwan, mainland China, among others.

As can be seen from the experience in various neighbouring countries/cities, centralized promotion activities, especially those orchestrated by teacher training institutions (e.g., as exemplified by Singapore and Shanghai below), is paramount.

In Singapore, the widespread adoption of flipped classroom has been facilitated by promotion seminars and incentives like awards to schools adopting the new pedagogy (e.g., Jurongville Secondary School, 裕廊景中学; <http://www.nie.edu.sg/files/ZB%2012%20Oct.pdf>; Spectra Secondary School, <http://www.spectra.edu.sg/learning-in-spectra/academic-subjects/maths>). The Institute of Education, University plays a pivoting role in helping and promoting this change (see Donnelly & Rizvi, 2013).

In Taiwan, in addition to various promotion activities by individual schools (e.g., International Bilingual School at Hsinchu-Science-Park), tertiary institutions (<http://www.tocwc.org.tw>), and parents organizations (<http://topic.parenting.com.tw/issue/2014/flipedu/>), there are also supports from private individual efforts (e.g., <http://www.fliptw.org> by individual professor) or charity foundations (e.g., 教育平台, www.eduplatform.org). Worth particular mentioning is the establishment of the platform in Oct, 2012 by , founder of . Authorized by the Academy in the USA, they reproduced all the English videos into Chinese for the students in Taiwan so that Taiwan teachers do not have to worry on producing these videos. By 2014 August, they have produced more than 4000 videos with more than 67000 active student users, more than a million trials on completion the online exercise in half a year (information from Academy). The effort is seen to be promoting equalization of learning opportunities to achieve excellence for all students

In mainland China, asking students to prepare before class using written material has been very common in many reputable schools. Thus, moving to use more e-resources in pre-lesson preparation is a natural and easy transition. In addition to regional promotion work by the education ministry (e.g., at Shangdong, 教育部教育管理信息中心“信息技术与教育教学深度融合典型案例研究”课题潍坊培训会, 高新区钢城现代学校, <http://www.sd.edu.gov.cn/jyt/ztl/jyxxh/webinfo/2014/07/1403598454947048.htm>), university faculties of education also play an important promoting role. For instance,

Professor of the Normal University has set up a consortium to promote flip and other related MOOC courses(「慕課中心」和「

Limited Experience at Tertiary Level in Hong Kong

While the neighbouring countries and cities have adopted and started experimenting flipped classroom, in Hong Kong, other than a few scattered talks, the promotional talks have been almost exclusively

targeted at the tertiary institution professors. The following list provides a rough picture on the limited public seminars done in Hong Kong, almost exclusively at the tertiary level.

In chronological order:

- Sharma, N., Doherty, I., Harbutt, D. (2013, April 19). Evaluation of the flipped classroom. University of Hong Kong, Centre for the Enhancement of Teaching and Learning.
- Lam, L. (2013, October, 22). Centre for Learning Enhancement and Research, the Chinese University of Hong Kong.
- Hau, K. T. (2014, Feb, 15). Web-Teaching and Flipped Classroom. Chinese University of Hong Kong.
- Mazur, Eric. (2014, July, 2). *Engaging Students One-on-One, All At Once Session 1*, workshop at the Hong Kong Polytechnic University.
- Mazur, Eric. (2014, July, 4). *Engaging Students One-on-One, All At Once Session 2*, workshop at the Hong Kong Polytechnic University.
- Hau, K. T. (2014, June, 11). Seminar on Flipped classroom. Vocational Teaching Council.
- Wong, E., Kwan, L. (2014, July, 7). The flipped classroom. Hong Kong Baptist University.
- Lewis, H. (2014, August, 4). The flipped classroom. The Hong Kong Polytechnic.
- Mazur, Eric. (2014, September, 10) *Engaging Students One-on-One, All At Once*. Hong Kong Polytechnic University.

Promotional Work by the Principal Applicant

The prominent role played by the Principal Applicant in promoting flipped classroom can be seen in his various works below. Participants in his seminars were supportive of the importance of flipped classroom. In these seminars, in which opinion surveys were conducted, participants agreed or strongly agreed that flip classroom should be strongly promoted (76% - 89%), they had interest to participate in future similar activities (70% - 87%), and would recommend colleagues to participate in similar activities (73% - 84%). His promotional work includes;

A. Giving talks

- 5 Jan, 2015 at _____, for _____ schools (1800 principals/teachers)
- 10 Dec, 2014, _____ School, for NET and English Speaking principals/teachers (up to 800 participants)
- 26 Nov, 2014, for _____ (60 special education schools)
- 28 August, 2014, _____ University _____, for visiting team from _____ 学院 (30 people)
- 27 August, 2014, _____ School, for 700 teachers + principals + major Hong Kong educational advisory committee members
- 1 August, 2014, Ningbo, _____ Education Forum. 300 Hong Kong and Ningbo participants
- 11 June, 2014, _____ headquarter, for _____ teachers (200 audience)
- 19 May, 2014, _____ School, principal + teachers (100 participants)

- 15 Feb, 2014, University (450 primary school teachers/principals)
- 14 Dec, 2013, at 1, Hong Kong Education City Learning & Teaching Expo 2013 (several hundreds participants)
- 11 October, 2013, Conference, Hefei, China, 200 participants, mostly university senior administrators

B. Articles written/ Press Interview

- 翻轉課堂. (2014). 《香港教育研究所通訊》, 36. 1-2. (interview)
- . (2013, 11, 28). 網上教學與翻轉課堂——追趕新加坡的教學改革. 《明報》.
- (2014) 「翻轉課堂」豈只改善教學【in 泰然自曰 column】(www.master-insight.com/content/article/1654)
- 《明報》(2014, 9, 1). 在家自學堂上討論「翻轉課室」教學起革命 (interview)
- <新報人> (Baptist Journalism magazine) (2014).
- Create a account – Let's flip – Hong Kong Classroom
- Create a account to broadcast related activities : FlipClassHK@gmail.com

II. Goals and Objectives

Broadly, this project has 3 goals:

- (a) to learn and accumulate the pedagogies and good practices of flipped classroom from neighbouring Asian/Chinese communities (Singapore, Taiwan, mainland China) that have been adopting this pedagogy of teaching for some time;
- (b) to establish a professional sharing platform of these collected good practices, which will serve to provide training materials, courseware, and hence as a teacher training and resource centre for teachers willing to flip;
- (c) to share and try out the usefulness of these good practices among a number of core teachers (tentatively from 10 schools) so as to refine and revise the platform of resources.

More Specifically;

- Through participants in earlier flip teaching seminars and other public venue (e.g., dedicated account on to promote flipped classroom in Hong Kong, etc.), we will invite schools to participate. From these schools, according to their experience and support, we will select 10 most suitable schools to join the project, on average each school will have around 70 teachers. Thus, discounting those teachers (like Physical Education) that may not be using flip, we might have potentially several hundred teachers reviewing our platform before it is formally launched.
- The leader of the project (or other key team members), the consultant in IT, and necessary research and production team members will visit neighbouring Asian/Chinese communities (Singapore, Taiwan, mainland China) to learn their experience and good practices in flipped teaching.
- The good practices learnt through the visits as well as other internationally collected or locally produced teacher training materials will be produced, systematically organized, and made available to all Hong Kong teachers through an established web platform. This will be a one-stop website for training teachers who are interested to flip.
- The team of teachers will try out and comment on the teaching materials in the website; the website materials will be polished and refined basing on these teachers' feedback.

III. Targets and Expected Number of Beneficiaries

During the project developmental stage, we will invite 10 schools to use the web resources for teacher training, so as to help their teaching as well as to improve the contents of the pages and courseware in the platform.

Directly the project will provide the necessary teacher training materials for the 52997 primary and secondary school teachers (23558 in primary, 29439 in secondary, though the 12384 teachers in kindergarten can also freely use the material, Hong Kong Census and Statistics Department; 2014/15, <http://www.edb.gov.hk/en/about-edb/publications-stat/figures/index.html>) in Hong Kong. However, our focus of service will be concentrating on the primary and secondary school teachers.

Indirectly the project will benefit 716263 school students (320918 primary, 395345 secondary, Hong Kong Census and Statistics Department; the 169843 kindergarten students can also be indirectly benefited), as well as other tertiary institutes lecturers and professors and their students. Similarly, we will also be focusing on primary and secondary school students.

IV. Conceptual Framework/Advantages of Flipped Classroom

The proposed project is developed based on the proven successful adoption of distant mode learning and flipped classroom teaching in different parts of the world.

As Hong Kong is seemingly late to adopt the pedagogy, it would be highly beneficial for us to visit our neighbouring communities that have successful implementation of flipped classroom teaching and to learn the best practices from them. When we are developing the platform, we will also make reference to similar projects elsewhere.

The project falls obviously on the Priority theme "Using e-Learning (IT) for Effective Learning" and indirectly on "Catering for Students' Learning Diversity" (see Sections A, C, and D below) and "Teacher Development and Wellness for Promoting Schools as Learning Organisations" (see Sections B, C below).

A. Individualized Instruction

In flipped classroom, as teaching materials are put on the internet, it can facilitate individualized instruction in that students, be them extremely below or well above average ability, can learn at their own pace. From my visits to schools for SEN students, I can see that flip teaching can be used extensively for students with special educational needs (SEN). What is needed is that more practices and teaching materials with more detailed explanation have to be deposited on the internet for individual students' needs. Understandably with students with server problem in using computers, then web-based learning will be very difficult. But in other cases for most SEN students now taught in schools, particularly for those in mainstream schools under integrative approach, then flip and web-based learning should be much promoted.

For the gifted students who need advanced and very specialized teaching materials (e.g., astronomy) can be prepared for their out of school learning. Students are empowered with their own control on pace and content to be learnt.

B. More Interactive Classroom Activities

Flip can create more room for other interactive activities in class by (i) having students self-learnt introductory materials (teacher-self-prepared or public domain videos and reading materials), (ii) putting drilling of skills (e.g., practice on reading aloud poems) to be carried out at home rather than in class, and (iii) watching the blended learning videos at home than in class.

C. Efficient Use of Teaching Materials

Initially, recording videos and designing additional teaching materials for flipped classroom may take extra effort. But once the materials are available on a public platform, they can be utilized repeated for various purposes and occasions, including before class (preparation), in-class (explanation), or after-class (review/revision). In the long run, the teaching materials will be efficiently leveraged and this will eventually save teachers' time on material preparation.

D. Accessibility

On the assumption that desktops or laptops can be arranged for students at home or in school after class, the use of videos is a relatively inexpensive mode of remedial teaching for low socio-economic status students (cf. more expensive after school private remedial tutorial lessons). Flipped classrooms can be an inexpensive way to narrow the socio-economical gap by providing an inexpensive and cost-effective learning solution. The cost will be further reduced when teachers are sharing teaching resources as in MOOCs, or kind of platforms, in which people contributed their works freely to other users.

V. Implementation Plan with Time-line/Milestone

- Months 1 – 3: (i) making contacts for visits (provide a list of potential sites of visit), (ii) building a framework (defining categories) for the platform
The purpose of the overseas trips are:
 - to see in first person how flipped classroom is being actually implemented in these best exemplars in different nearby countries;
 - to video tape some of these practices in real operation;
 - to interview some of these exemplary teachers;
 Therefore, these visits cannot be replaced by teleconferencing with overseas teachers.
- When the suitable research assistants are hired, we will identify the exemplary schools and teachers through triangulation. In this process, probably we will use web conferencing to explore and identify the best suitable schools/teachers to visit. Currently we have some ideas/contacts, such as in Primary School in Singapore, schools in Shangdong, schools supported by University Faculty of Education, Day School in Beijing, schools supported by University faculty of education. However, the final list will be settled through in-depth exploration after we conduct more research on the practices in each of these schools. We believe our network of potentially interesting schools will expand as the project get started. For participating schools in Hong Kong, we have now identified 10 schools through our existing network built in previous seminars (/email groups). They have also signed a letter of intent for inclusion in this revised submission.
- Months 4 – 12: (i) visits (record of visits), (ii) construction of teaching resources (videos, reading materials, Q and A), establishment of platform
- Months 13-18: try out from the teachers, platform refined and improved

VI. Collaboration with Other Parties / Partners**Choice of Partner Schools**

Though ultimately we are serving all schools in Hong Kong and we will pilot with 10 schools, constituting several hundred teachers, in developing the platform. These schools will help out the projects like participants in empirical research. Specifically, their role is to test out the usefulness of the

platform, rather than as content developers. Thus, in essence, there will not be school collaborators in the project and no school list will be provided in this section at this stage.

As can be seen in the Implementation Plan (V) above, the website of resources will only be available after the first 12 months of the project. It would be difficult to engage the commitment of schools without any concrete site being built.

Currently we have a list of contacts in which principals /teachers from reputable schools and school sponsoring bodies that have interest to participate. We are keeping an email list as well as a page to keep them in contact. The principals that have attended our workshops/seminars and who have shown interest in further collaboration work include primary, primary, Primary School, schools, as well as a lot of secondary schools. To engage their commitment, we have now invited some schools in this network. Ten schools have already signed a letter of intent, now included in this submission, that have interest to participate in our trial out of the web resource.

An IT expert team has been engaged as a partner for several reasons:

- the production and hosting of video and the adoption of other interactive strategies (e.g., using in class), etc. require high quality IT support
- in the production of the video, we may engage an outside service provider in video-editing, transcription services. Eventually whether we will engage an outside service for video-editing and transcription depends on whether the research assistants /associates we hire are able to do it ourselves or not. If not, we will try to find the cheapest suitable service providers according to the university expense procurement procedures.

VII. Budget

| <u>Category</u> | <u>Item</u> | <u>Budget</u> | <u>Justification</u> |
|-----------------|--|---------------|--|
| Staff cost | <p>a) Compilation of information / writing of instruction for teachers: must be very experienced teacher (e.g. Senior Graduate Master (\$57,275 - \$70,490/month), Research Associate (master + 4 years of experience; CUPSB CUHK salary scale Point 16-30 (equivalent to \$24,735 - \$48,785, midpoint \$35,420 as at October, 2014), Postdoctoral Fellow (PhD, CUPSB 19-27; \$28,620 - \$42,505, midpoint \$37,065) with teaching experience, (see remarks)</p> <p>will be hired full time, fractional-time, or on task basis</p> <p>assuming half load of $\\$35,000 \times 50\% \times 15 \text{ month} = \\$262,500$</p> <p>b) assuming 8 month full time equivalent</p> <p>MPF = 8 month \times \$1,500/month = \$12,000</p> | \$274,500 | As this person has to be fully knowledgeable on teaching pedagogy, and has to give advice to principals and other senior teachers in the schools, s/he must be at least SGM or equivalent level; the salary cited below \$35,000 per month is likely underestimating the actual salary that has to be paid. Thus, this salary rate is only enough for a much smaller fraction (less than |

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|------------------|---|---------|---|
| | | | <p>50%, down to 20%-30%) of an experienced SGM, or for 50% of a much less experienced research personnel;</p> <p>assuming we hire a person at only 55% of the mid-point of SGM (i.e. $63,882 \times 55\% = 35,000$), and at only 50% (half load) of this person's working load: (please see further explanation immediately below the table)</p> <p>i.e. half load of $\\$35,000 \times 50\% \times 15 \text{ month} = \\$262,500$</p> <p>[this will be equivalent to hiring a mid-point SGM $\\$63,882/\text{month}$ for 4.1 month]</p> |
| Equipment | <p>General IT equipment = \$3,000</p> <p>Computer (desktop, 1 set) = \$5,500</p> | \$8,500 | <p>This may include removal hard disk, thumb disks, cables or other IT consumables for learning and teaching.</p> |
| General Expenses | <p>(1) photocopying, printing, miscellaneous (e.g. video-editing and transcription, and other miscellaneous expenses/items)</p> | \$5,000 | <p>(1) Photocopying and printing of reference materials during the process of the project and other consumables</p> |

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|---|---|---|------------------|---|
| | <p>(2) Oversea trips, rough estimate (see remarks):</p> <ul style="list-style-type: none"> a) Airfare (average \$3,000/per person/trip) b) subsistence per person (accommodation, meals, local travel, assuming \$2,000/day × 4 days) : \$8,000 (see note below: only around 71% of the average university rate of all cities) c) assuming 5 members × 4 trips × \$11,000 /person/trip : \$220,000 <p>(3) web-hosting : \$3,000</p> <p>(4) Audit Fee: \$5,000</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">Total for the above expenditure items = \$516,000</td> </tr> </table> <p>(5) University Charges/overhead (15% of expenditure)</p> <p style="padding-left: 20px;">$\\$516,000 \times 15\% = \\$77,400$ (5% = \$25,800)</p> <ul style="list-style-type: none"> a) Administration (university charges on personnel and other administrative service, around 5% of total) = \$25,800 b) Facility (university charges on use of electricity, office, telephone and other facilities, around 5% of total) = \$25,800 c) Financial services (university charges on financial and other related services, around 5% of total) = \$25,800 | Total for the above expenditure items = \$516,000 | <p>\$305,400</p> | <p>(2) At this stage, it is difficult to estimate the actual amount to be used in these trips, which depend very much on the availability of our overseas exemplary schools/teachers, as well as the availability of our team members for the trips. We request that this amount is the ceiling capped for the trips, while the money unused for the trips will be used for other costs in the project.</p> <p>(3) (4) are the necessary cost for learning and teaching in the running of the project</p> <p>(5) these are the necessary expenses incurred at the university level to help out the accounting, personnel, and even office expenditure (electricity, etc.) due to the project; as required by UGC, the university should not use the block grant (for undergraduate studies mainly) to subsidise other projects.</p> |
| Total for the above expenditure items = \$516,000 | | | | |

| | | | |
|--------------|--|------------------|--|
| Contingency | The above expenditure excluding staff cost and overhead = [Equipment + Service + (General Expense – Overhead)] = 8,500 + 0 + (5,000 + 305,400 – 77,400) = \$241,500 Contingency \$6,600 of \$241,500 = 2.7% | \$6,600 | The contingency is reserved for small expenditures that may not have been fully budgeted in the above items. |
| Total | | \$600,000 | |

Remarks:

- since collecting, editing, compiling and writing the necessary teaching materials will required multiple dimensions of training and experience, fresh graduates may not be able to do the work competently; more senior postdoctoral fellow, research associate grade of officers are required;
- as we are producing materials to be used by principals, senior teachers in the schools, it is paramount that our production should be of quality acceptable by these experienced and senior teachers in the schools; thus, the senior teaching staff hired should be familiar with various teaching pedagogies so as to identify the most essential skills/approaches being used in the flipped classroom; we do not anticipate junior grade teaching staff may possess the kind of calibre required for the tasks;
- the IT expert must be competent to edit the video, put it on the web for quick, easy and efficient reference by the teachers; S/he will likely be a university graduate or equivalent.
- likely 3 communities/cities will be selected from: Taiwan (can be more than 1 city), China (can be more than 1 city) and Singapore;
- sometimes not all targeted schools in the same city can be visited in the same trip (because the different schools may not be available for our visits in the same time slots), so it is possible that we might have to visit the same city more than once;
- the eventual trip arrangement depends on the exact location, duration, total members in each trip, etc.; we request that the present budget is the maximum cap; if less money is used in some of the trips, more trips to these cities or even to reputable centres at the USA or other countries can be made, OR that the money can be used for other expenses in this project;
- university rate (HK\$) of subsistence allowance in Taipei: 2164; Beijing: 2921; Shanghai: 2557; Singapore: 3514 (average = 2789)

Assets Usage Plan

| Category | Item / Description | No. of Units | Total Cost | Proposed Plan for Deployment |
|-------------------|---|--------------|------------|---|
| Computer hardware | General IT equipment (e.g., for the non-consumables such as removal hard disk, thumb disks, cables or other IT consumables) | 1 | \$3,000 | For learning & teaching after the project |
| | Computer (desktop) | 1 | \$5,500 | |

VIII. Deliverables/ Outcomes/ Dissemination/ Project Evaluation

Deliverable:

- a collection of teaching materials (reading, videos, case studies):
 - basic concept of flip classroom teaching (philosophy, historical development of flip); Though ideally we would like to video tape as many key learning areas and academic subjects as possible, this may not be logistically possible because the academic subjects eventually chosen are totally determined by the subjects taught by the exemplar teachers. However, we will always pay attention to make the widest spectrum as possible. Our tentative exploration suggests that there are very diversified strategies adopted by flipped classroom, and we will try out best to document as many good examples as possible. Likely we will cover Mathematics, English, Chinese, Science and possibly some other Key Learning Areas.
 - implementation procedures of flip, general strategies;
 - good practices and case studies in different communities;
 - frequently asked questions, myths and suggested solutions to challenges.

Outcome:

Teachers can use the material to understand:

- what flipped classroom is,
- how it can be implemented in their teaching,
- how various challenges/difficulties can be overcome.

Teachers can use the website to share their teaching experience and good practices; it will also become an online community for sharing the good practices.

Dissemination:

- dedicated page to promote flip teaching in Hong Kong,
- email notifications to all participants in earlier promotion seminars,
- seminars and possibly newspaper reporters.

Project Evaluation

This should be the one-stop platform for most teachers who would like to learn about or try flip teaching. The key indicator of success would be their satisfaction of the material deposited on the platform.

Performance indicator is teachers' satisfaction rating along several domains:

- a) basic philosophy on why flipping is important;
- b) general procedures on how to prepare and conduct the "first" flip lesson;
- c) technique to prepare videos and reading materials;
- d) techniques/issues in conducting a good discussion /interactive activity in class;
- e) references to other sites of the above issues.

This will be evaluated through a questionnaire survey by the 10 participating schools, and if necessary, more schools beyond this list.

IX. Sustainability of Project Outcomes

In various countries, there are different successful platforms providing related promotion activities and MOOC (massive open online course) like materials, which will be supported by venture capital funds, the government, or commercial operations. They include, www. .com , www. .com , www. .com among others. In Taiwan alone, there are major players such as www. .org, www. .tw , www. .org . Thus, there are multiple websites in the same country or city serving similar but slightly different purposes. There are several unique characteristics of our proposed website:

- it will serve mainly the primary and secondary school teachers, and hence indirectly their students and parents;
- it will be tailored towards the Hong Kong context; while university students can easily use textbooks in other countries, primary and secondary school students use mainly textbooks that are produced locally using examples and contexts more relevant to Hong Kong students and their school curriculum;
- particularly when Chinese is used in the videos, the spoken dialect Cantonese will be used, which will not be available in websites in other Chinese communities (e.g., Taiwan, mainland China).

When this website gains sufficient usage and has been demonstrated to be useful, either the government or commercial operations should have interest to expand its service. Otherwise, just the simple maintenance of the website under the university should not be difficult.

Report Submission Schedule

My school commits to submit proper reports in strict accordance with the following schedule:

| Project Management | | Financial Management | |
|--|----------------|---|----------------|
| Type of Report and Covering Period | Report Due Day | Type of Report and Covering Period | Report Due Day |
| Progress Report 1/6/2016-30/11/2016 | 31/12/2016 | Interim Financial Report 1/6/2016-30/11/2016 | 31/12/2016 |
| Progress Report 1/12/2016-31/5/2017 | 30/6/2017 | Interim Financial Report 1/12/2016-31/5/2017 | 30/6/2017 |
| Final Report 1/6/2016-30/11/2017 | 28/2/2018 | Final Financial Report 1/6/2017-30/11/2017 | 28/2/2018 |

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網上教學與翻轉課堂——追趕新加坡的教學改革

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試行教師：備課先苦後甜

侯傑泰(2014)「翻轉課堂」豈只改善教學【in 泰然自曰 column】(www.master-insight.com/content/article/1654)

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翻轉課堂：尋找成功要素及建立良好策略分享平台
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學校名稱 Name of

校長簽署 Signature

校長姓名 Name of

聯絡電話 Telephon

日期 Date: _____

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