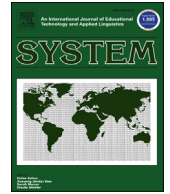


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Curriculum 2.0 and student content-based language pedagogy



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ABSTRACT

This paper reports on an action research project designed to develop and integrate a new conceptual learning and teaching approach into four language-related courses in an Australian university. Being named Curriculum 2.0 after Web 2.0, the approach places the production, sharing and learning of student content at the centre. In this paper, we recount the project, focusing on how its aims were methodically pursued through reflective experiments to incorporate student content-based pedagogy into the selected courses. Among others, three major actions will be discussed, namely segmenting content, building a content bank and developing an equitable system for assessing individually created content, which proved effective in implementing the new approach. The course and outcomes of the project, to be presented in this paper, will inform the continuing evolution of the scholarship of language learning and teaching.

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1. Introduction

Language teaching has evolved from teacher-centredness towards student-centredness in both language (Biçer, 2017; Brown, 1994) and translation courses (González-Davies, 2004; Kiraly, 2000). However, student-centredness may not be accomplished due to a missing link, that of student content. The reliance on teacher content has been and continues to be prevalent in most language courses and may undermine the positive impact of student-centred pedagogy on the learners, especially in the era of Web 2.0 which is characterised by crowd production/sharing and cloud storage of content (O'Reilly, 2005). In addition, routines for the learning, teaching and assessment of student works have yet to be developed to make them a viable content option.

Recognising the importance and potentials of student content, we, i.e. the researchers, conducted an action research project in two Chinese language courses and two translating and interpreting courses in a leading Australian university from 2005 to 2016. The project was designed to experiment with a new teaching approach that incorporated the crowd creation/sharing and cloud storage-based use of student content. As the project had been conceptually inspired by DiNucci's (1999) revolutionary concept of Web 2.0, we decided to name the new approach Curriculum 2.0.

In this paper, we will first review how we identified student content as a major issue to address in the project in Section 2. Then, we will describe the project methodology, three of the major actions and the project outcome. We will conclude by

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listing the benefits of the project and by presenting models of Curriculum 2.0 and the classical teacher-centred pedagogy, which we have constructed for the benefit of the readers. The models will be accompanied by a deferred definition and a succinct critique of the two approaches.

2. Literature review

2.1. Teacher content

Content is an essential aspect of language pedagogy and is especially central to a content-based curriculum (Olshtain, 1989), which is typical of many Chinese language-related courses in Australia and China. In most cases, content is simply selected by the teacher from published sources or compiled by the him/her. In contrast, there could have been content purposefully made by students individually or cooperatively in the learning process to facilitate language pedagogy by complementing teacher content.

Traditionally, however, content means teacher content not only in classical language teaching which, according to Numan (1989) and Brown (1994), is preoccupied with transmitting knowledge and skills from the teacher to the students. Teacher content also defines many modern language courses taught in so-called “designer” approaches. Examples include “texts of force, literary quality, and interesting characters” (suggestedopedia), texts “developed as course progresses” (community language learning), “realia” (natural approach), and “coloured rods, colour coded pronunciation and vocabulary charts” (silent way) (Brown, 1994, p.71). Where it is used, teacher content serves as the primary source of knowledge, or at least as a template on the basis of which students are supposed to learn and construct new knowledge.

2.2. Student content

In the Web 2.0 era, student content is beginning to make its way into tertiary language courses (Jurkovic, 2019). Web 2.0 is defined by the harnessing of collective intelligence (DiNucci, 1999; O’Reilly, 2005; Stevenson & Liu, 2010) and engagement of users including especially young people as authors as well as users/consumers of digital content (Clark, Logan, Luckin, Mee, & Oliver, 2009; Jurkovic, 2019). This is made possible by modern technology in conjunction with CALL and MALL, which embody the use of modern digital technologies in language pedagogy (Andujar, 2016; Stevenson & Liu, 2010; Stickler & Shi, 2016) and which provide users with an “opportunity to play a more active role of potential author, contributor, editor, or specialist” (Stevenson & Liu, 2010, p. 234). Students are beginning to “collaborate in the development of content and creation, dissemination and categorization” (Sykes, Oskoz, & Thorne, 2008, p. 532) or “consume, create, and edit content while easily collaborating” with peers to learn a language (McLoughlin & Lee, 2007). Language exercises designed for content creation include primarily blogging, audio blogging, mobile blogging, video blogging, and use of Wikis, Facebook, Flickr and Google Map (Jee, 2011). Examples of creation and sharing of student content have been documented by (Cho & Castaneda, 2019) in Spain, Miyazoe and Anderson (2010) in Japan, Lomicka and Lord (2012) in the US and Liou and Peng (2009) in an unnamed Asian country.

2.3. Obstacles to incorporate student content

Many obstacles are in the way of meaningful and sustained incorporation of student content as students continue to attend language courses and use modern technologies “for receptive rather than interactive/productive activities” (Jurkovic, 2019, p. 27). Several will be named here, which we addressed in the action research. Firstly, motivating students to participate in content creation has proven a challenge as they would have to assume different roles, change their learning habits, and invest more time. In other words, they need to be convinced of the worthiness of their participation. Secondly, there are no clear guidelines or routines for student content to be created, shared and learned systematically, or for it to be enhanced to a quality standard worthy of pedagogical purposes, or for it to be fairly and equitably assessed. Thirdly, student content has not been theoretically isolated as a separate concept to be adequately defined, demarcated or studied. More research is required to explore it as a distinct category to complement teacher content. Fourthly, as a new invention, it is small in quantity and poor in depth (Clark et al., 2009; Stevenson & Liu, 2010), mostly in the form of blogs and wikis (Wang & Vásquez, 2012), and is of unreliable quality (Stevenson & Liu, 2010). It appears to have been vulnerable vis-à-vis certain other newer developments of pedagogies and technologies including especially MOOCs which seek to further centralize teacher content and intensify rote learning, resulting in high student dropout rates (Veletsianos & Shepherdson, 2016). Fifthly, research in Web 2.0 language pedagogy is generally not grounded in established theories (Wang & Vásquez, 2012). A theoretic framework has yet to surface for university language courses in which creation and use of student content is to be institutionalized and made rewarding.

In summary, teacher content has traditionally prevailed and student content only surfaced recently. For student content to become a credible option or component of language-related course content, a number of obstacles as listed in the preceding paragraph have to be resolved. Against this backdrop, we conducted this action research project, the design of which will be described next.

3. The project

3.1. Objectives and research questions

Committed to the vision of a true student-centred language pedagogy, we embarked on the action research project to introduce student content into the selected courses and build routines for its use and assessment. To achieve the objectives, we took a problem-based approach, i.e., addressing the obstacles listed in 2.3, which were translated into the following research questions to guide our actions.

- 1) What should be done to motivate students to engage in producing and using student content?
- 2) What routines are to be built to enhance student content quality to make it worthy of language learning?
- 3) What routines are to be built to facilitate equitable and justifiable assessment of individually created student content?
- 4) How is student content together with its use to be justified to the school management and the public?

3.2. Methods

We addressed the research questions in a cyclic, reflective manner and through a cycle of actions, which is typical of action research (Cabaroğlu, 2014; McDonough & McDonough, 1997; McTaggart, 1991). Inspired by Cabaroğlu's (2014) model of action research, we proceeded methodically. We investigated obstacles, designed solutions, and took actions intended for introducing student content and for building routines for its use and assessment. As the actions proceeded, we reflected if any of them should be improved or if new ones should be designed and implemented. In addition, we also critically documented the action research in a methodical way to generate what Cochran-Smith & Lytle referred to as "a different knowledge base" (1993, p. 2) and to prepare for writing up research reports including this one for the purpose of disseminating findings.

Fig. 1 shows the course, progress and outcome of the action research. We knew where we were in the beginning of the action research (i.e. teacher-centredness) and Curriculum 2.0 (i.e. student-centredness) was where we would like to get to at the end. We identified student content as the game changer but confronted a number of obstacles. To tackle the obstacles, we planned and took specific actions which we continuously adjusted and improved as we reflected on their efficacies and limitations and how we could do better in order to achieve the objectives. The actions include three major ones, namely content segmentation, content bank and plan-based assessment, which will be elaborated on in 4.1–4.3. Others, including especially the many provisional practical actions taken daily and weekly to smoothen the coursework, manage the class and counsel the students, are too massive to be delved into in this paper of limited length.

3.3. Data collection and analysis

This paper is based on analysis of two sources of data. First, we conducted a retrospective, reflective overview of the course of the action research project. Then, we critically analyzed the evidences collected through the project, which were used to triangulate the findings of the overview.

The overview enabled us to look back, dig deep into our recollections of the action research since its beginning in 2005. We critically recalled what motivated it, what vision was formed to guide it, how student content was identified as the main issue, what obstacles were confronted in the way to student content, what strategies were formed and what actions were taken to mitigate the obstacles, and how students reacted to the change, etcetera. We knew that, as action researchers aspiring to drive a desirable pedagogical change, we should strive to be truthful and critical with the overview.

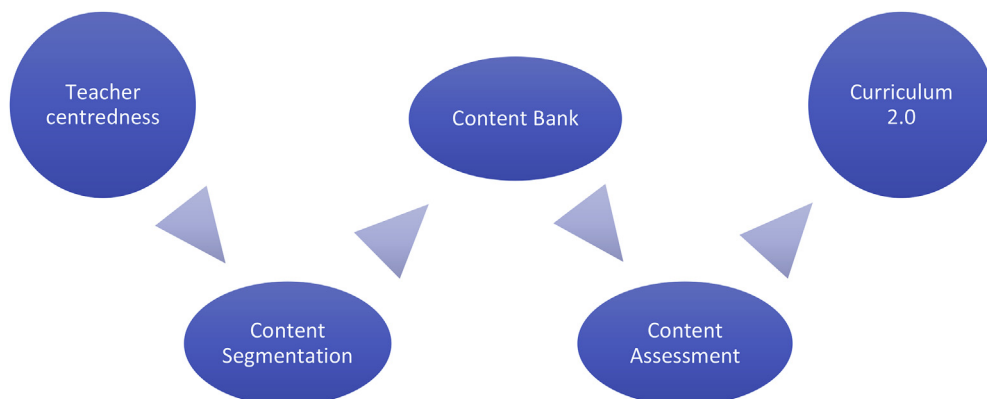


Fig. 1. Course of actions towards Curriculum 2.0.

The evidence analysis treated data from three sources of documents. Lesson plans, teaching journals and the like, which the teacher personally compiled for each contact hour of his courses, belong to the first source. They provided data with regard to the quantity and growth of student content created and used, what grade was given to each piece and how much time was invested in it for pedagogical purposes, etcetera. The student content bank was a second source, which provided data in relation to the growth and size of student content. Student evaluations of the courses in question were a third source, which provided data in relation to the efficacy of student content from the perspective of students. We treated some of these data (e.g., quantity of student content and teaching evaluation) through basic statistical analysis and other data (e.g., student behaviours and student-teacher interactions) through qualitative analysis.

3.4. About the action research project

The action research project was conducted in a Sydney-based university by a local teacher (one of the co-authors of this paper) aided by three visiting scholars from China at different stages. It started in 2005 with two language-related courses, i.e., Chinese English Translation (Translation hereafter) and Chinese English Interpreting (Interpreting hereafter). Two languages courses, i.e., Advanced Chinese I and II (Chinese I and II hereafter), which used to enrol only background students (i.e., those with Chinese backgrounds), were added in 2009. All the courses were upper-level, enrolling students in their 2nd or 3rd year of university studies. In 2015, the enrolments kind of doubled except for Interpreting as a result of restructuring. Furthermore, the two language courses were opened up to non-background students. The action research concluded in 2016 mainly because its vision proved incompatible with the drastically inflated enrolments.

3.4.1. Content prior to the action research project

The four courses used to rely on teacher content prior to the action research. For example, a subject reader constituted the primary content of Translation, consisting of two series of chapters. One was intended as staple for presentations by the teacher, class discussion and compulsory reading and was included in the coursework assessment. The other was intended as optional readings. Additionally, two types of source texts were included, namely the assessable and optional, each of 400–800 words, which were intended for translation assignments, practice, discussions, and demonstrations in contact time. As shown in Table 1, the size of the teacher content of Translation remained rather stable for the whole duration of the action research.

3.4.2. Contact time

Contact time available, i.e., occasions when a whole cohort and the teacher meet as required by the coursework, has been a crucial factor in shaping the pedagogical approach of the courses both prior to and at the end of the action research. As shown in Table 2, students of Translation/Interpreting and Chinese I/II have a constant total contact time of 1800 min and 2400 min respectively. What percentage of the contact time is invested in student content-based pedagogy as a result of the action research will be shown in 5.2.

4. Actioning towards curriculum 2.0

To accomplish the project objectives, we actioned methodically to drive creation and use of student content and related pedagogy. Actions were purposefully planned, implemented and reflectively improved to overcome the many obstacles, including the ones listed in 2.3. Three of the main actions, which were continuously tested and proved effective, will be discussed next. Other numerous provisional actions taken daily and weekly are just too many to be delved into in this paper.

4.1. Segmenting student content

Segmentation was a crucial action taken by the researchers to better engage students in creating, sharing and learning student content. By a combination of plan-based assessment (4.3), peer assessment, and teacher assessment, we segmented student content into three tiers, i.e. learning content, learning/teaching content and teaching content. Student learning content was all that was made by any member of a current cohort individually or in small groups and was intended to facilitate self-directed learning and crowd use within small groups. Student learning/teaching content was selected on merits from the learning content and was intended to facilitate crowd use within the cohort. The best of student learning/teaching content was given a second chance to improve further and, if the improvement was satisfactory, would become teaching

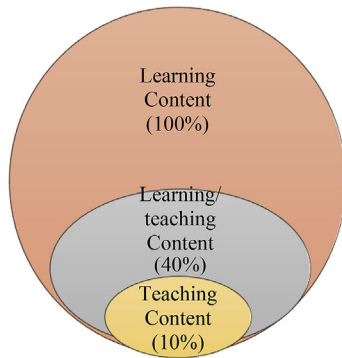
Table 1
Size of teacher content of Translation.

Teacher Content	2007	2010	2013	2016
Assessable chapters in the Subject Reader	10	10	10	10
Recommended chapters in the Subject Reader	12	14	14	13
Assessable translation texts	4	4	4	4
Optional translation practice texts	8	10	10	10

Table 2
Total contact time.

	Hours/Week	Weeks/Session	Total Hours	Total Minutes
Translation/Interpreting	3	12	36	1800
Chinese I/II	4*	12	48	2400

Assuming 50-min effective pedagogical time in each contact hour. *2 h of lecture and 2 h of tutorials. Tutorials were held in two smaller separate groups. 2400 min were the total available time for any one student of Chinese I or II.



Student Learning Content

- All content created by students
- Assessed within small groups
- Used to facilitate crowd learning within groups

Student learning/teaching Content

- 40% of all content and selected on merits
- Assessed within the cohort
- Used to facilitate crowd learning within cohort
- Given a 2nd chance if seen as possessing potentials for upgrading to teaching content

Student Teaching Content

- 10% of all content selected on merits (or 25% of student learning/teaching content)
- Assessed and used for facilitating crowd learning in the cohort
- To be added to content bank (4.2) as samples to facilitate crowd learning across cohorts.

Fig. 2. Three tiers of student content.

content, which was to become content for learning and teaching across as well as within cohorts. The percentages of student learning/teaching content and student teaching content had varied over time but gradually stabilized at about 40% and 10% respectively of all content created by members of a cohort. This segmentation system is illustrated in Fig. 2 and the accompanying captions.

The segmentation of student content has several major benefits for the accomplishment of Curriculum 2.0. One involves selecting quality content for the interest of peer learning. Another involves enhanced efficiency of contact time through optimized use of the student content, preserving only the worthiest quality content for crowd learning within a cohort and across cohorts while designating the rest for use and assessment within smaller groups. Still another was about motivating more and better content to be created. Indeed, many of the aspirational creators of student learning/teaching content did embrace a second chance and improved their content substantially, which was added to the student teaching content for the benefit of students of all cohorts.

4.2. Building student content bank

Building a student content bank accessible to students was another important action intended to continuously enable new content to be created and existing content to be enhanced and updated in order to make it worthy of crowd use. It was a virtual bank, into which were deposited the teaching content works created by other students as well as by members of a current cohort and also some selected learning/teaching content items which possessed certain worthy uniqueness. Ethics-wise, consent had been obtained from authors of all deposited content to allow access by peer and future students and, in some cases as in this paper, by the public. A number of strategies were taken to enable and maximize the use of the content bank, including having the works published in university online teaching platforms (Blackboard before 2012 and Moodle ever since)¹ well before a coursework begins, uploading selected content in social platforms (e.g. YouTube and Tencent Video), and specifying in the assessment rubric how many items of the student content bank must be quoted in assignments such as critical reviews and research presentations. As the action research project progressed, more and better content was added to the bank to update it. Tables 3 and 4 show the pace of the growth of the bank from 2007 to 2016.

¹ As the university Moodle is closed to the public, we have uploaded 12 videos to YouTube for the convenience of the readers, all of which have all been ethically cleared. Here are six of them: • *Same, Same but Different* (Multimedia research presentation for Interpreting): <https://youtu.be/gaXW2xriVHM>. • *Audio Description* (Multimedia research presentation for Translation): <https://youtu.be/XUgCEZSo95M>. • *Caged Animals* (Role play for Interpreting): <https://youtu.be/on8y0zbNXjk>. • *ReMengval* (Multimedia Reading Aloud for Chinese I): <https://youtu.be/7ip616aRPi8>. • *Children Learning Language* (Science Communication for Chinese I and II): <https://youtu.be/EFhsP-d9sag>. • *Who Am I?* (Personal Statement for Chinese II): <https://youtu.be/LhahCncegcl>. More videos of student content samples can be found at: <https://www.youtube.com/channel/Uckj2wyPTsESHUeYRgRtz6kQ/videos>

Table 3
Size of student content in Translation.

Year		2007	2010	2013	2016
	Number of students in the cohort	30	29	27	57
SLC	Word processed critical reviews	22	20	16	39
	Multimedia critical reviews	8	9	11	13
	Multimedia research presentation	11	11	10	18
SLTC	Translations of short texts	120	116	108	208
	Word processed critical reviews	9	7	6	13
	Multimedia critical reviews	2	3	3	5
	Multimedia research presentation	2	3	4	7
STC	Student reference translation	12	12	12	12
	Word processed critical reviews	6	10	15	21
	Multimedia critical reviews	3	5	8	15
	Multimedia research presentation	2	5	7	12

SLC, SLTC and STC stand for student learning content, student learning/teaching content and student teaching content respectively.

Table 4
Size of student content in Chinese II.

Year		2010	2013	2016
	Number of students in the cohort	39	37	59
SLC	Multimedia reading aloud	22	29	27
	Multimedia personal statements	17	18	29
	Written science communication essays	21	17	20
	Multimedia science communication essays	6	7	12
SLTC	Multimedia reading aloud	11	9	14
	Multimedia personal statements	5	6	11
	Written science communication essays	7	9	8
	Multimedia science communication essays	2	4	7
STC	Multimedia reading aloud	5	10	18
	Multimedia personal statements	4	9	16
	Written science communication essays	4	7	14
	Multimedia science communication essays	3	8	14

SLC, SLTC and STC stand for student learning content, student learning/teaching content and student teaching content respectively.

The student content bank offered a number of important benefits, only some of which will be presented here. One involved providing guidance to students through samples to assist with their own content creation. Starting from 2011, we enhanced this benefit by adding the teacher's feedback to every student work in the bank, which included the grade given, the ground for the grading, comments on the strength and weakness of a work, and justification of the grade given. A second benefit had to do with modernized presentations of knowledge from students' perspective. In the content bank, there was multimedia and mobile as well as print-media content, which was appealing and engaging to students of the digital age. Cloud storage of the content was a third benefit allowing student access anytime and anywhere to facilitate self-directed learning. Still another benefit involved enhancing student learning agency (Gao, 2013) through facilitating self-directed learning and peer interactivity outside class-time so that precious contact time could be used more efficiently for learning and teaching by the whole of the cohort.

4.3. Assessing student content

A third action was intended to develop an equitable and justifiable system to assess individually created works, which not only gave participating students useful feedback but also motivated better content to be made and drove the content bank to continuously update. For individually created content to be viable, assessment must account for individualised differences, performances and expressions rather than being based on students' grasp of standard answers. So, from the beginning, we adopted an assessment procedure developed by Zhong (2005, 2006, 2018) and known as plan-based assessment. This assessment can be compared to the so-called formative assessment, in which evidence about student achievement is elicited, interpreted and used by teachers, students, or their peers, to make decisions about the next steps in instructions" (Black &

William, 2009, 9). But while formative assessment “clarifies assessment criteria and standards for students, helps them set learning goals and facilitates their engagement in self-assessment” (Xiao & Yang, 2019, pp. 39–40), plan-based assessment engages students to set own learning goals and assessment standards (Zhong, 2005, 2006, 2018).

Plan-based assessment places great emphasis on students' self-knowledge, autonomous learning and his/her consultation with the teacher. In a nutshell, the procedure consists of three phases. The first engages students to formulate content production plans based on own evaluation of task requirements, anticipated outcome, own capacities, available resources and strategies as well as on consultations with the teacher. In the second phase, students endeavour to implement their respective content production plans. The third phase is about grading students' work on the basis of their respective plans, including whether it is justifiable, whether it is adequately accomplished, and whether an optimal outcome is achieved. In short, plan-based assessment is a contractual process in which a student agrees with the teacher as to what s/he would do and achieve, endeavours to deliver as is agreed, and gets graded accordingly.

The use of plan-based assessment proved conducive to student content production by giving students peace of mind for creating own content, engaging students in own learning paths and acquiring personally relevant sets of knowledge and skills. We also took other actions to complement and enhance the procedure, one of which involved applying different combinations of teacher-based assessment and peer assessment in different tiers of student content. When selecting learning/teaching content within small groups, students took more charge of assessment and nominated 70% of the student learning/teaching content and the teacher 30%. When selecting teaching content, the teacher took more charge and was responsible for grading and identifying works which would be given a second chance and for providing specific advice for improvement towards the teaching content status. Students were invited to give peer comments to all student teaching content, which was uploaded online together with the works and the teacher's feedback. These blended assessments strengthened students' role and participation in the pedagogical process.

5. Curriculum 2.0 complete with student content

Next, the outcome of the action research will be presented with a focus on three parameters of student content, i.e. its sizes in the coursework, time spent on its uses in contact hours and student evaluations of the courses. For the sake of brevity, only two courses in selected periods (e.g. every three years whenever applicable) will be discussed, namely Translation and Chinese II, which represent the two extremes of opinions in the course evaluations. Additionally, comparison will be made between the size of teacher content and that of student content in Translation to show the extent of the change.

5.1. Student content growth

The sizes of student content provide a good indication of the action research outcome. Tables 3 and 4 show the sizes and growths of student content in Translation and Chinese II. Most importantly, the sizes of the student teaching content, which was an aggregate of content selected from the learning/teaching content on merits from previous and other cohorts as well as the current cohort (4.1) increased steadily in all the categories over the years. For example, word processed critical reviews, multimedia critical reviews and multimedia research presentations increased from 6/3/2 in 2007 to 21/15/12 items in 2016 respectively in Translation. Multimedia reading aloud, multimedia personal statements, written science communication essays and multimedia science communication essays increased from 5/4/4/3 in 2010 to 18/16/14/14 items in 2016 respectively in Chinese II. The growth looked rather spectacular especially when compared to the teacher content as exemplified in Translation, which not only remained steady in quantity over the years (Table 1) but was also sidestepped as a result of increased use of the former, more on which in 5.2. In other words, student content has steadily accumulated over the years to become an essential component of the course content.

5.2. Time spent on student content in the courses in 2016

The contact time invested in the cohort use of student content is another good indicator of the project outcome. By 2016, when the project concluded, a significant percentage of the contact time was thus spent, as shown in Tables 5 and 6, amounting to minimally 795 min and 950 min respectively. These were equivalent to 43.9% and 39.6% of the available contact time (Table 2) of the two courses. “Cohort use” refers to the engagement of a whole cohort and the teacher in face-to-face pedagogical activities, which include the following: a) student presenting own content and second chance presentations where applicable, b) in- and post-presentation discussions and interactions between presenters and peer students, c) teacher providing live feedback to, critique of and assessment of student content in class, and d) teacher using student content to explain course and assignment requirements, to deliver course content and information and to guide further content creation. The estimates in Tables 5 and 6 are based on archived teaching plans. In reality, the time spent on the cohort use of the student content is believed to have exceeded the estimates.

Not included in the above estimates was the time spent on the creation of student content before and after class, which would have involved literature search, consultation with the teacher and peer students, acquisition of necessary skills, and various technical work (e.g. shooting, editing, computer work and uploading). Nor was the time spent on use and assessment of student content within small groups. Nor was the time spent on various pedagogical activities outside the contact hours, including a) creation, sharing and learning of content, b) self-directed access to and use of the content bank, and c) other

Table 5
Estimated minutes spent on student content in Translation (2016).

	2016	Works	Works Used	Min/each	Subtotal
SLTC	Word processed critical reviews	13	10	15	150
	Multimedia critical reviews	5	5	15	75
	Multimedia research	7	5	15	75
	Short text translations	12	12	10	120
STC	Word processed critical reviews	21	10	20	200
	Multimedia critical reviews	15	7	15	105
	Multimedia research	12	7	10	70
Total					795

SLTC and STC stand for student learning/teaching content and student teaching content respectively.

Table 6
Estimated minutes spent on student content in Chinese II (2016).

	2016	Works	Works Used	Min/each	Subtotal
SLTC Works	Multimedia reading aloud	14	10	10	100
	Multimedia personal statements	11	7	10	70
	Written science communication essays	8	6	15	90
	Multimedia science communication essays	7	5	15	75
STC Works	Multimedia reading aloud	18	11	15	165
	Multimedia personal statements	16	10	15	150
	Written science communication essays	14	8	20	160
	Multimedia science communication essays	14	7	20	140
Total					950

SLTC and STC stand for student learning/teaching content and student teaching content respectively.

typical learning activities expected of tertiary students, such as reading, discussions and homework etc. All these were time-consuming.

In summary, the following can be said with regard to the use of the cohort time. As student content becomes staple of the coursework, a substantial amount of time is spent on it. More importantly, it is taking up much of the time that used to be spent on teacher content.

5.3. Student feedback regarding curriculum 2.0

We had relied on two kinds of feedback to facilitate our cyclic actions to introduce Curriculum 2.0 and to reflect on the progress of the action research for the purpose of writing up this paper. One consisted of official evaluations administered by the university at the end of each course and the other consisted of non-official qualitative feedback collected during a course. Due to the length limitation, only the former will be included in our discussion of students' perceptions about the validity, quality and worthiness of the courses. In fact, the latter is found to complement and corroborate the former. Completed blind and online, the official course evaluations invited students to read ten statements, which are reprinted in full in the Appendix and represented by their ordinal numbers plus keywords in Table 7. Students indicated to what degree they agreed or disagreed with each statement. The six degrees were given different values (1–6) where 1 signalled "strongly disagree" and 6 "strongly agree".

Based on the official evaluations, Table 7 best reflects students' respective perceptions about the four courses and the average of the whole offerings of the School of Humanities and Languages (HAL) to which they belonged. The data were from 2013, i.e. the last time during the action research when all the four courses were simultaneously included in the officially administered evaluations—one or two courses were stayed each year from 2014 to 2016 due to the teacher on Sabbatical or Long Service leaves. Of the four courses, Translation and Interpreting outperformed the average courses of the HAL except in relation to Statements 3, 6, 7 and 4, 7, 9, 10 respectively. Especially the evaluations of Interpreting continued to improve with the mean of mean ratings set at 5.33 in 2014 and 5.6 in 2015—raw data not included in this paper due to space limitation. Specifically, more students saw both of the courses as providing helpful feedback, as well as having clear course aims, being effective in developing thinking skills and providing helpful course materials than average HAL courses. Furthermore, more students saw Translation as participatory, meeting course aims and satisfactory. More students saw Interpreting as challenging/interesting and providing clear information about course assessment. The students only disagreed less to Statement 7 regarding both of the courses because perhaps they were not fully convinced of the suitability of the plan-based assessment adopted for the courses.

Table 7
Course evaluations in 2013.

	Chinese I	Chinese II	Translation	Interpreting	HAL
1) Course aims clear	4.22	4	5.71	5.33	5.05
2) Feedback helpful	4.43	4.25	5.57	4.83	4.82
3) Course challenging	4.59	4.88	5	5.33	5.1
4) Student participation	4.43	4.63	5.71	5	5.15
5) Thinking skills	4.17	4.38	5.29	5	4.99
6) Assessment info clear	4.83	3.88	5	5.33	5.03
7) Assessment methods	4.35	4	4.43	4.67	4.97
8) Course materials	4.43	4	5.14	5.17	5.04
9) Course aims met	4.36	4.25	5.14	5	5.04
10) Satisfied with course	4.3	4.13	5.14	4.83	5.01
Mean of means	4.41	4.24	5.21	5.05	5.02

HAL is the School of Humanities and Languages (i.e. mean rating across the whole of the courses offered by the school).

In comparison, students' responses to the two Chinese courses were less positive across the board and were under par in relation to the ten statements in 2013. In fact, evidence not included in this paper indicated that Chinese I and II were often rated lower than Translation, Interpreting and the average of the HAL courses except in 2014 when inexplicably Chinese II received an average mean rating of 5.4, one of the very best of the whole HAL. Based on these evaluations, we have reflected further. Given that the four courses participated in the same action research, a possible explanation is that a student content-based pedagogical regime like Curriculum 2.0 is less suitable to dedicated language courses than language-related courses. Or perhaps, if the explanation is further stretched, the new approach is less suitable or likeable to language-only students. On the other hand, as action researchers, we would like to think that reforming dedicated language courses may be more challenging and that we need to work harder to make the reform fruitful with them.

Furthermore, we would like to add that the mean ratings of Chinese I and II and Translation fell significantly in 2015 and 2016. For example, the mean of the means of Translation fell to 4.7 in 2016. There were two explanations to this fall. One was the drastic expansion of cohort sizes since 2015 due to rationalization, leading to increases from under 30 to between 50 and 70 students in each course. In contrast, the 2015 mean ratings of Interpreting, which was spared from enrolment increase, remained superior to the HAL mean ratings in relation to each and every statement. Another involved a school decision to merge non-background students, i.e. students of no Chinese heritage, into Chinese I and II in 2015, as a result of which students of entirely different linguistic capacities had to study and compete together. The explanations suggested that further action research is required to explore how Curriculum 2.0 can better accommodate large cohorts of diverse backgrounds.

6. Conclusion

In summary, this paper reported on an action research project. After a brief introduction, the report reviewed the status quo of language pedagogy and identified a weak link in relation to content. This was followed by a summary of the project design, including its vision, objectives and methods. There was then a discussion of the course of actions taken to motivate more and better student content to be made, which included segmenting content, building a content bank, and assessing content in an individually equitable manner. The report concluded by showcasing the outcome of the action research, focusing on the extent and reception of student content in the real-life courses in which it had been trialled.

The project itself proved an enjoyable process and yielded fruitful outcomes. As we experimented with introducing student content, we explored, reflected and actioned continuously, seeing it as our chance to become better teachers/researchers and to drive real changes in our work, and leave footprints in the evolving scholarship of language learning and teaching. Better still, we found student content to have been a viable option as a component of language-related coursework. Specifically, it can be crowd produced, its quality be enhanced to a satisfactory level, credible procedures be built to enable its creation, enhancement, use and assessment. And it can complement and balance existing teacher content in multimedia as well as print-media forms. Furthermore, opinions of the co-participants of the project were found to have been sympathetic to and even supportive of the student content-based language pedagogy, at least in the translation and interpreting courses, though further research appeared required for student content to be as successful in the language courses. We believe that the action research has paved another step in the evolution towards student-centred language pedagogy by filling the missing link of student content.

Based on the action research, we have constructed two contrastive models (Fig. 3), one for describing what the teacher content-based language pedagogy looks like and the other for defining and articulating Curriculum 2.0 and for showing what student content-based language pedagogy looks like in the approach. Centralizing the teacher and his/her content at the centre, the former places students at the periphery, making them move towards the centre as they try to grasp the teacher content and get graded accordingly. In the Curriculum 2.0 model, symbolized by an arbitrary number of small hollow circles and an equal-sized solid circle, students and their teacher form a crowd of content producers, sharers and learners. As students produce content individually or in groups, they engage in individualised learning and expand in different directions,

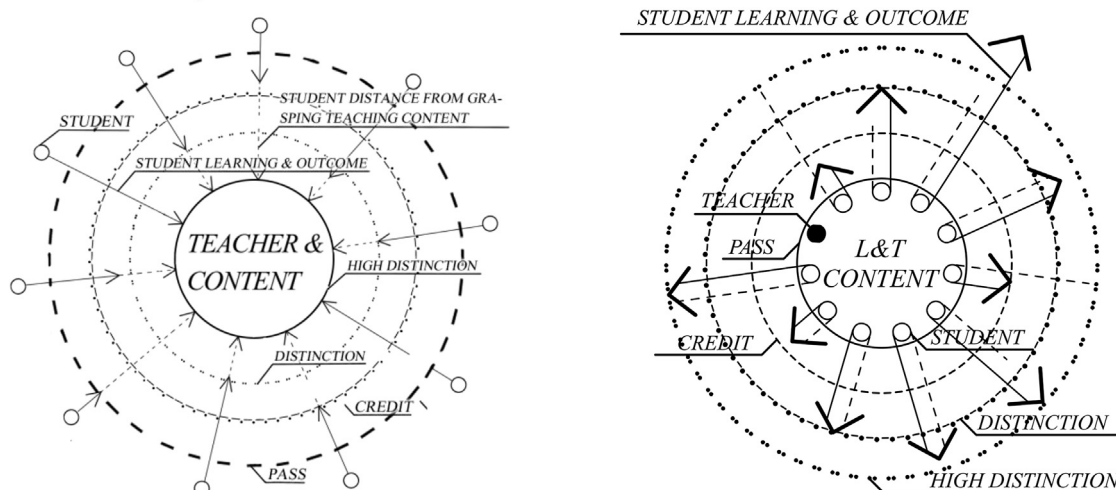


Fig. 3. Teacher-centred language pedagogy vs Curriculum 2.0.

as is signalled by the out-going arrows. They earn their grades, i.e. pass, credit, distinction or high distinction as symbolized by the circles, which would be proportionate to the degree of the expansion of their knowledge and skills as shown through the quality of their content. More specifically, through consultation with the teacher, individual students formulate content creation plans, anticipating what the outcomes would be as signalled by the broken lines of the arrows. They then endeavour to achieve their respective plans, have their works graded against the plans, and get deserved grades as signalled by the unbroken lines of the arrows. In a nutshell, Curriculum 2.0 is defined as a pedagogical approach which, inspired by Web 2.0, works by engaging students in the crowd production and use of content.

This action research has a number of benefits to offer to different parties. For language teaching researchers, the project demonstrates how action research can be conducted to improve teaching performances and to realign teaching with social progress. For language teachers, the project proposes a new teaching approach known as Curriculum 2.0 centralizing student content, fills a missing link of content in the evolution towards student-centred language pedagogy, and contributes to curriculum development studies. For general readers, the benefits include an exposure to an alternative pedagogical approach, a chance to familiarise with updated action research procedures through examples, as well as an invitation to explore the use of student content for enhanced pedagogical outcome. Last but not least, we have gained plenty especially with regard to cultivation of action research capacity, career development and contribution to knowledge enhancement in the field.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.system.2019.06.001>.

Appendix. The ten statements of the course evaluation questionnaire:

- 1) The aims of this course were clear to me.
- 2) I was given helpful feedback on how I was going in the course.
- 3) The course was challenging and interesting.
- 4) The course provided effective opportunities for active student participation in learning activities.
- 5) The course was effective for developing my thinking skills (e.g. critical analysis, problem solving).
- 6) I was provided with clear information about the assessment requirements for this course.
- 7) The assessment methods and tasks in this course were appropriate given the course aims.
- 8) The information/course materials provided for this course were helpful in understanding its content.
- 9) The aims of the course were met.
- 10) Overall, I was satisfied with the quality of this course.

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