# Analysis on the Path of Constructing the "Golden Course" of General Education in Application-oriented Universities

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*Abstract: How to ensure the quality of general education courses and achieve the goals of general education courses has become a common problem in general education in universities. At present, the problem of "water class" has appeared in the course construction of colleges and universities. In particular, general education in applied colleges has become the hardest hit area of "water class". This article analyzes the status quo of general education in applied colleges and general education has become "water class". The cause of the hardest hit area, proposed an optimized path for effective teaching of general education, integrated innovation, and committed to creating a "golden class" of general education courses.*

*Keywords: General education, Golden Course, Optimization path*

After the liberation, my country's higher education was deeply influenced by the Soviet education model in the 1930s. In the early 1950s, Chinese colleges and universities carried out faculty reforms, excessively demanding professional training models for professional counterparts, and cultivated a large number of socialist construction during the reform and opening-up period. Much-needed talent. However, the cultivation of highly specialized talents limits the development of personality and intelligence, lacks the cultivation of humanistic and scientific spirit, and has a large gap with the requirements of modern society for talent cultivation ability and quality.

The 13th five year plan for national education pointed out: "we should deepen the reform of undergraduate education and teaching, explore the talent training mode combining general education and professional education [1], and establish the status of general education. General Education (English Translation: General Education), also known as "general education", aims to integrate knowledge, cultivate the ability to think about problems from multiple disciplines and angles, surpass the limitations of professional knowledge, achieve the cognition of universal knowledge, transform universal knowledge into a knowledge system to improve self cognition, and finally cultivate complete people [2]. It can be seen that the curriculum evaluation and teaching quality of general education directly affect the success or failure of teaching reform and the quality of wide caliber talent training.

In 1829, general education was first linked to university education by the American Professor A S Packard. Since then, developed countries have paid much attention to general education. The academic seminars on general education in the three places of the Taiwan Strait have gradually increased. Professor Huang Junjie's "Concept and Practice of University General Education" and "Exploration of University General Education: Taiwan's Experience and Enlightenment" have provided effective general education in Taiwan's universities. Basis. In mainland China, Peking University took the lead in developing general education and established Yuanpei College; Tsinghua University promotes an education method that integrates general education and professional education, establishes a core curriculum system for cultural quality, and establishes Xinya College; Sun Yat-sen University opens Liberal Arts College, etc. Therefore, the effective way of exploring general education in our country's colleges and universities has become a big sight. However, the teaching effect of the general education curriculum, which carries the lofty goal of educating people, has not been proved, instead, it has the reputation of "water class". This phenomenon is an unavoidable problem for applied universities.

By analyzing the current situation of general education courses in applied universities, this paper analyzes the causes of becoming the hardest hit area of "water course", constructs a high-quality general education model, and explores the effective path of "golden course" of general education.

## 1. "Water Course" is a Stubborn Disease of General Education in Applied Universities

What is "water class"? It refers to a course where the teacher is "good" but "not good in class", "high score" and "easy to pass", the class is not called, the course has no content, the assessment requirements are low, the test score is high, and the class is easy and the grade point is high, that is, the content "Water" or "Water" is required. The "water" and "scattering" of general education are essentially the lack of correspondence between the curriculum goals and the curriculum system. Then, why did general education courses become the hardest hit area for "water courses" in applied universities?

First, teachers teach "water". There are deviations in Teachers' understanding of general education, insufficient investment in the teaching process, low gold content of curriculum content, rough preparation of syllabus, teachers' attitude and unpolished teaching process imperceptibly convey to students' lack of attention to general education.

Second, students learn "water". Students put their main energy into professional learning, but do not pay enough attention to non professional learning. Especially for general education, they do not take into account the integration of subject knowledge. Many students choose general courses based on their interests or "mixed credits", and face the pressure of high grade points. They often prefer teachers. The teaching content has no theoretical depth and deliberately caters to students' tastes Teaching assessment "water" courses, while courses with heavy teaching tasks are often not favored by students. Students' demand for "water" and their attitude of not paying attention to general education affect teachers' teaching investment to a certain extent. Students also bear unshirkable responsibility for the emergence of "water class".

Third, teaching management "water". At present, general education teaching generally adopts two teaching modes: traditional classroom teaching and online course teaching. First of all, the traditional classroom of general education has a large scale, which is generally composed of 2-3 classes. It objectively ignores the individual differences of students, and there is a large gap between teaching effect, teaching quality and teaching expectation. Secondly, the teaching resources of general education can not respond well to the requirements of online course sharing. Most colleges and universities still face the dilemma of the shortage of general education resources, but the deep integration of education and technology is not enough, resulting in the lack of monitoring of the online course teaching process of general education elective courses, the lack of online learning interaction, students hanging up and lax examination, and students can not only learn "water" but also test "water".

## 2. Analysis on the Causes of General Education Becoming "Water Course" in Applied Universities

Why does general education, which carries the lofty teaching goal, become a "water course"? Through the comparison of general education between domestic research universities and application-oriented universities (Table 1 and table 2), find the gap between the two types of general education, explore the particularity of general education in application-oriented universities, and analyze the inducement of general education seepage.

*Table 1: General Education Teaching in some academic and Applied Universities1*

| School category | School | Cultivate target keywords | Curriculum system | General module settings | Study time |
|---|---|---|---|---|---|
| Some academic universities | Beijing University | National feelings, international vision, innovative spirit and practical ability | General education core courses + School wide elective courses+ General platform courses | Mathematics and Natural Science + Social Science + Philosophy + History + Languageliterature and Art + Science of sustainable development | The school system is one and a half years, followed by professional teaching |
| | Fudan University | Human civilization, individual and society, national culture, critical thinking | General education core courses + Special education courses + Elective courses | Literary and historical classics and cultural inheritance + Philosophical wisdom and critical thinking + Civilized dialogue and world vision + Scientific exploration and technological innovation + Ecological environment and life care + Artistic creation and | The school system is one year, and professional teaching will be carried out after the period |

| | | | | aesthetic experience + Social Research and contemporary China | |
|---|---|---|---|---|---|
| Some applied universities | Zhejiang Acollege | Applied talents with national culture, combination of general education and specialized education, international vision, construction oriented and service-oriented | General education compulsory course + General Education Elective Course | Humanities + Social Sciences + Politics + Natural sciences + Sports + Computer and other professional courses | Through the four-year school system, general education and professional education are carried out at the same time |
| | Shunde B College | Applied talents who adapt to local economy and face the front line of society | General core courses + Compulsory courses + General restricted courses + General optional courses | Economy and management + Humanities and Social Sciences + Science and art | Throughout the 1-3 academic year, general education and professional education are carried out at the same time |

*Table 2: General Education Teaching in some academic and Applied Universities2*

| School category | School | Organization management | teaching method | Proportion of general education |
|---|---|---|---|---|
| Some academic universities | Beijing University | School General Education Management Committee, School General Education Steering Committee | Small class teaching, large class teaching and small class discussion | Approximately equal to 40% |
| | Fudan University | School General Education Steering Committee, General education curriculum construction Steering Committee | Tutorial system, classic guidance, small class discussion, diversified assessment, online learning | Approximately equal to 33% |
| Some applied universities | Zhejiang A college | General education curriculum group | Traditional large class teaching, supplemented by online courses | Approximately equal to 20% |
| | Shunde B College | With the combination of general education and specialized education, limited course group and optional course group are set up on the basis of compulsory courses of general education | Traditional classroom teaching, supplemented by life and environmental experience | Approximately equal to 23% |

### 2.1 The Training Objectives of General Education in Applied Universities are Limited

There are great differences in curriculum objectives and training direction, school and social expectations between research-oriented universities and application-oriented universities, so there are obvious differences in the emphasis on general education, educational concept and teaching implementation. Research universities take elite talents as the training goal and high-level scientific research achievements as the support. General education is positioned as an elite talents with family and country feelings, responsibility, national strategic vision, multi-disciplinary integration and thinking ability focusing on the process of social civilization. The application-oriented colleges and universities aim at cultivating application-oriented talents with high skills, innovatively and serving the local economy, and pay more attention to the cultivation of social skills.

### 2.2 There is "Cultural Deficiency" in General Education in Applied Universities.

The core connotation of general education in research universities is "culture", and how to cultivate "educated whole people" is the core purport of general education in research universities. Peking University's "General Education Library" attempts to introduce historical accumulation and human history and culture to students. Fudan University focuses on students' understanding and recognition of traditional culture, and requires communication and exchange with other world civilizations.

General education in applied universities still stays at the level of knowledge and technology, rather than the level of spirit and culture. It mainly covers traditional courses such as two courses, physical education, computer and some humanities courses. General education is not equal to humanities courses and professional courses. It is not to cultivate humanistic knowledge and professional skills, but to cultivate people with rational thinking, dialectical thinking and all-round development. Therefore, the curriculum of general education in applied universities is difficult to grasp the essence of general education. Secondly, general education lacks cultural integration. The English translation of general education draws on the interpretation of "general" and "knowledge". General education has the characteristics of comprehensiveness, diversity and nationality. It should be based on its own excellent national cultural tradition, reflect the characteristics of the close combination of nationality and internationality, promote the mutual penetration and blending between different disciplines, and improve students' comprehensive thinking ability.

### 2.3 Lack of General Education Management Organization in Application-Oriented Universities

At present, research universities generally have general education management committees and general education steering committees. Some have established colleges or academies with organizational guarantee system, while application-oriented universities lack independent management institutions and institutional guarantee for general education, which makes it difficult for general education teaching to effectively communicate and coordinate with the professional curriculum teaching of other colleges, Lack of overall management of teaching resources and courses. First, there is a lack of organic connection between courses, which can not form a reasonable curriculum system. The formulation of the general education module in the talent training plan is not rigorous, the demonstration of the general education curriculum is insufficient, the audit is not standardized, and there is a lack of access mechanism. Second, from the perspective of teaching modules, research universities pay more attention to the correlation of disciplines and knowledge complementarity, and pay more attention to the improvement of students' logical ability, speculative ability and judgment ability and the integration of knowledge system, while application-oriented universities usually use general modules such as humanities, nature and society plus professional skill modules, which lack the improvement of thinking ability. Third, in terms of credits, the general education credits of research universities account for 30-40%, while the general education credits of application universities account for relatively low, accounting for only about 20% of the total credits; In terms of course type and quantity, research universities are both liberal arts and science and pay attention to the integration of disciplines, while applied universities account for more than 4 / 5 of Humanities and social sciences courses and small proportion of science and engineering courses, so it is difficult to achieve the effect of balance between disciplines, communicating Arts and science and cultivating scientific spirit and humanistic spirit; Fourth, from the perspective of study time, research universities are mainly concentrated in the first 1-2 years, first general education and then professional teaching, emphasizing the educational concept of broad foundation and re cultivation, while application universities run through the undergraduate academic system for four years, general education and professional education are carried out at the same time, and the time is relatively fragmented; Fifthly, in terms of teaching conditions, research universities learn from the methods of western general education, implement small class and tutorial system, and pay attention to the benign interaction between teachers and students and the in-depth extension of teaching. However, the investment of software and hardware in application universities is insufficient. They mainly focus on traditional classroom large class teaching, make use of network educational resources to complement each other, and the teaching reform is very little; Sixthly, in terms of teaching quality, there is a great gap in teaching quality among courses in Application-oriented Colleges and universities. Some of the courses have unclear purport, insufficient teaching means, vague course content and no theoretical depth. Students call them "water course".

### 2.4 Lack of General Education Curriculum Teaching Evaluation System

China's general education evaluation system is still in its infancy. There is no scientific and systematic general education evaluation system, insufficient theoretical research and immature technical support. Most colleges and universities use the teaching quality evaluation methods and index system of professional courses, and lack special teaching quality evaluation standards for general education. First, the evaluation objective of general education is not clear enough and the evaluation content is not comprehensive enough. Because the evaluation objectives are not clear and specific, the evaluation content of general education courses is not clear enough. We can not only take whether the

courses are popular with students as the main evaluation index. The evaluation index should be scientific and operable, including curriculum teaching objectives, teaching contents, teaching forms and methods and teaching effects. Second, the characteristics of general education are not highlighted in the evaluation criteria. General education has the characteristics of foundation, accommodation and profundity. The evaluation standard should highlight the characteristics of general education and be independent and different from the evaluation of professional courses. Third, the quality evaluation method of general education is single. The teaching quality evaluation of general education is consistent with the evaluation methods of professional courses. It focuses on students' evaluation of teaching, supplemented by supervision evaluation of teaching, peer evaluation of teaching and leadership evaluation of teaching. Although the evaluation subjects are different, the teaching quality evaluation of general education should pay more attention to the requirements of emotion and ability, forming a special evaluation method.

## 3. Composition of High Efficiency General Education in Applied Universities

There are great differences in talent training objectives and career expectations between research universities and applied universities. To a certain extent, the objectives of general education are not comparable. Then, how to build an efficient general education in Applied Universities?

### 3.1 Constructing the Concept of General Education Integrating Scientific Thinking Ability and Professional Foundation

Education is not set up to seek a career in the future, but to cultivate harmonious people with knowledge, ability and literacy. If education is to cultivate talents with highly professional skills without extensive education, he cannot master new science through self-study, which is a serious consequence of education with too high degree of specialization. The concept of general education is to enable students to thoroughly understand the general principles, and cultivate personal skills beyond professional knowledge conducive to self-development while teaching key professional abilities. Then, general education should be integrated into the process of professional education, so as to deeply integrate general education and professional education, set up interdisciplinary courses, and make professional learning influenced by general courses at the same time. It is mainly reflected in the following aspects: first, the people-oriented concept of education runs through general education, emphasizing the needs of students as an important basis for general courses, and paying attention to teaching students according to their aptitude; Secondly, pay attention to the combination of general courses and professional courses, form a multi-disciplinary learning model, and improve students' comprehensive quality in an all-round way; Finally, pay attention to international exchanges and cooperation, understand the important value of educational exchanges, and promote the internationalization process of general education courses.

### 3.2 Taking High-Level Promotion of Professional Talent Training as the Curriculum Goal of General Education

The goal of general education is to cultivate people with systematic thinking ability who coexist specialty and theory. By learning multidisciplinary knowledge, they can master professional core competence and have self-development personal skills, including independent consciousness, communication ability and adaptability, and pay attention to cultivating comprehensive literacy ability (Table 3).

General education is integrated into the whole process of professional education, and phased teaching from shallow to deep is set up to lay a solid foundation for cultivating talents with systematic thinking. Through the study of courses in the basic stage, understand the theoretical basis and development direction of the specialty, deepen the understanding of the professional learning process, and lay a theoretical foundation for learning professional courses; By improving the learning of stage courses, let students combine the early theoretical knowledge with the later professional courses to further consolidate the professional foundation; Through the study of advanced courses, in-depth professional learning, broaden professional perspective and innovate professional fields. The development of academic exchange activities not only expands the professional perspective, is conducive to the exchange and innovation of professional knowledge, but also enhances personal social ability and goes deep into the development of various disciplines.

*Table 3: curriculum system of general education in Applied Universities*

| Cultivation stage | Course subjects | Training objectives |
|---|---|---|
| Basic module | Professional basic courses + general courses (Mathematics and natural sciences, social sciences, philosophy, history, language, literature and art, etc.). Take one multi-disciplinary general course. | While teaching basic professional courses, it provides students with multi-disciplinary courses to improve their comprehensive professional ability and level. |
| Improve module | Improvement courses in professional fields + interdisciplinary oriented modules (HUMANITIES, psychology, economics, physics, etc.) are elective courses from other colleges. | While meeting the needs of students, interdisciplinary learning is realized to the greatest extent, which effectively reduces the learning cost of students. |
| Advanced module | This stage pays attention to the study in the professional field and makes sufficient preparation for the graduation thesis. The professional module involves all-round professional core courses, and the general module includes graduation design and thesis writing guidance. | The training goal of this stage is to deepen professional learning, improve professional ability and meet the needs of graduation thesis writing. |
| Project module | Throughout the learning process of students, exchange meetings such as academic discussion and literary discussion are held continuously to carry out experiments and practical training. | On the basis of professional learning, meet diversified needs and improve the quality of graduation thesis. |

### 3.3 Building a curriculum structure of general education with both specialty and theory

Integrating basic knowledge and professional knowledge, the education of four modules is conducive to the cultivation of professional and comprehensive talents. The talent training system is divided into four stages of curriculum, which defines the main contents and training objectives of curriculum learning, and effectively avoids ignoring the edification of general education and the cultivation of comprehensive literacy in the process of professional curriculum learning. Close connection should be established between modules to connect different stages of learning and improve the general education curriculum system. The all-round professional core courses provide students with sufficient choice opportunities. On the one hand, they provide more research directions for the topic selection of papers, on the other hand, they provide more innovative ideas for the research direction through academic discussion and literary discussion and exchange.

### 3.4 Develop Multidimensional and Comprehensive General Education Courses

The general education module involves mathematics and natural sciences, social sciences, philosophy, history, language, literature and art, and interdisciplinary oriented modules, including humanities, psychology, economics, physics and other courses obtained from other colleges, providing students with more learning choices. Set up diversified forms of course learning, including seminars, exchanges, lectures, discussions, etc., promote the interaction of various disciplines, effectively improve students' mastery of interdisciplinary knowledge, and strengthen the path of multi-disciplinary comprehensive education.

### 3.5 Building a General Education Team.

Teaching team is an important project for general education reform and improving teaching quality.

### 3.5.1 Establishment of General Education Management Organization

To ensure students' learning results and give full play to the effect of general education, a general education management organization should be established at the level of organization management, operation and self-improvement mechanism, clarify rights and responsibilities, and establish a normalized administrative operation mechanism. Improve the mechanisms of curriculum access, planning and design, teaching and learning effect feedback, etc. Establish scientific, reasonable and feasible general education curriculum evaluation standards, strictly implement teaching quality evaluation and monitoring, timely feed back evaluation information, and give full play to the function of general education management organization.

### 3.5.2 Set up a General Education Teaching Team with the Course Group as the Unit

General education aims to break the professional barriers, achieve discipline integration, enable

students to have the thinking ability and research ability of different disciplines, provide students with broad and integrated knowledge for students with different discipline backgrounds, and require the teaching team to go beyond the boundaries of disciplines and have an academic background integrating both arts and science. For general education teaching with complex teaching objects and wide coverage of curriculum content, the teaching team must form a teaching form with curriculum group as the unit and complementary subject knowledge and moderate high curriculum content.

### 3.6 Reform of General Education Classroom Teaching Mode Based on Internet Plus

The surging scientific and technological revolution and the rise of subversive technology groups such as big data, artificial intelligence, quantum technology and life science have a profound impact on the pattern of higher education. "Internet plus" teaching mode has become one of the focuses of teaching reform in various courses. Introduce high-quality teaching resources on the network platform, make full use of super star Erya and other large general education curriculum platforms, build a curriculum system in line with the general education objectives of our school, use online teaching resources to carry out online and offline mixed teaching and flipped classroom, and carry out various forms of classroom flipping with high-quality general education courses such as MOOC. Through the Internet plus mode, we can achieve three teaching links in pre -, middle and after class, so as to enrich the teaching content and make the teaching methods more vivid.

### 3.7 Improve Teaching Conditions and Enhance Classroom Perception

Classroom perception is an intuitive feeling of the teaching environment after students enter the specific classroom learning presented by teachers. It is the result of the interaction between students and learning environment. Based on the "Internet plus", the rise of MOOC alleviated the lack of high-quality curriculum resources in general education. MOOC resources with high reputation are introduced, and some teachers realize flipped classroom based on MOOC resources, which puts forward new requirements for the learning environment. To create a suitable teaching environment, we need to increase investment in funds and equipment, build smart classrooms, and improve the planning of hidden courses, which is in line with the needs of teachers' teaching and students' learning.

### 3.8 Scientific Design and Formulation of General Education Evaluation Indicators

Curriculum teaching quality evaluation is the core of the internal security system of colleges and universities. It carries out scientific and reasonable quality evaluation around the achievement of general education curriculum objectives and teaching contents, investigates students' learning results from the perspective of students, and truly reflects the teaching results of general education classroom through students' self-evaluation.

The curriculum evaluation index is designed based on the evaluation of students' learning results, which is mainly divided into two forms - traditional evaluation (Table 4) and customized questions (Table 5). In the traditional evaluation, students first give an overall evaluation of the course, and then evaluate the 10 observation indicators respectively. In order to fully and carefully understand students' subjective and real views on the curriculum, several personalized questions are formulated as a supplement to the traditional evaluation.

*Table 4: Evaluation indicators of students' learning harvest (traditional evaluation)*

| Primary index | Main observation points |
|---|---|
| Learning harvest | Has the knowledge been broadened |
| | Has the ability to access data been improved |
| | Whether the self-study ability has been improved |
| | Is critical thinking improved |
| | Is teamwork improved |
| | Have you improved your social skills |
| | Are the interests and skills required for academic research improved |
| | Whether the expression ability has been improved |
| | Is the ability to solve practical problems improved |
| | Is writing improved |

*Table 5: Examples of customization problems*

| Primary index | Main observation points |
|---|---|
| Problem customization | According to your understanding, briefly describe the overall goal of the course (open questions) |
| | Can teachers' teaching stimulate your interest in learning? (open questions) |
| | Will you remember the content of the course in five years? (open questions) |
| | Teachers evaluate the contents of supplementary materials in class (open questions) |
| | Do you need to use critical thinking in exams? (open questions) |
| | What are your suggestions for teachers' teaching of this course? (open questions) |
| | What is your expected test score for this course? |

In addition, we can diagnose and improve the implementation of curriculum teaching through phased evaluation. By investigating students' intuitive feelings about the course, we can truly and effectively understand students' acceptance and learning effect, and improve teaching methods in time. The indicators of phased evaluation mainly include students' learning, classroom organization, teaching effect, homework and students' academic pressure.

## 4. An Effective Way for Application-Oriented Universities to Build "Golden Courses" in General Education

How to cultivate people with professional key ability, academic work technology and guiding knowledge, general education should always cultivate systematic thinking ability and self-social development ability. General education courses in applied universities not only provide rich professional courses, but also require the dual characteristics of refinement and interdisciplinary, so as to promote the development of science and technology while cultivating professional talents.

### 4.1 Establish the Core Concept of General Education

The core of general education is the concept of general education integrating scientific thinking ability and professional foundation. It pays attention to the close connection between scientific research and philosophical thinking ability. Cultivating thinking ability and self-ability is the goal of general education. Promoting the cultivation of mentally sound "whole people" with the effective combination of professional learning and systematic thinking ability is the direction of general education in applied universities.

### 4.2 Integrate the Theory and Practice of General Education

To cultivate people with excellent professional ability and comprehensive quality, the curriculum of general education should deeply integrate theoretical knowledge and professional practice, clarify professional training objectives, support the "soul" of professional education with general education, promote professional talent training at a high level, and realize the integrity of knowledge system. Closely serve the local, reflect on professional development, clarify training objectives, consolidate theoretical basis, and provide diversified practical activities, including seminars, enterprise practice, etc.

### 4.3 Prepare High-Quality General Education Curriculum Syllabus

The syllabus highly in line with the teaching objectives is the cornerstone of the "golden course" of general education. The preparation of high-quality syllabus needs the following conditions: first, teachers have a deep understanding of the objectives of general education to make the curriculum design meet the teaching objectives. Second, teachers should have in-depth research and cognition on the teaching content and the fields involved in the curriculum. They need to combine their own academic research and knowledge vision, consider the teaching objectives and students' cognitive laws, integrate practical problems and solutions, and complete the organization of teaching activities.

### 4.4 "Student Centered" Teaching Process Design

Effective teaching is based on students' active participation and deep investment. Therefore, reforming teaching methods is an important means to create "golden class". "Student centered" and

paying attention to the teaching process are the basic characteristics of the "golden course" of general education. The effective and high-quality teaching process includes several contents: first, the academic challenge is high, including the difficulty, breadth and depth of the teaching content, equipped with strict and standardized learning training; Second, teachers have flexible teaching skills, clear organization, accurate expression, effective homework guidance, and timely feedback on homework and other academic interactions; Third, promote and guide students to actively participate in teaching activities, accumulate their willingness to learn independently, and ensure the full and effective communication between teachers and students and students; Fourth, in the teaching process, the combination of theoretical learning and practical learning, and the combination of speculative ability and learning experience can effectively guide students to think.

### 4.5 Improve the General Course Management System

We should attach great importance to general education and set up diversified and high-quality general courses to provide students with sufficient choices. First of all, the general education curriculum access standards, curriculum assessment standards, teaching time and graduation audit should be consistent with the professional curriculum standards, and we can't ignore one and lose the other; Secondly, we should break the barriers between professional courses and general courses, supply some professional courses that meet the objectives of general courses and can be completed by general majors to the general course system, and realize the integration of subject knowledge.

### Acknowledgements

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