

# Use of Asynchronous Online Discussion in an Online Chinese Heritage Language Course (异步在线讨论在一华裔线上中文课程中的应用)

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**Abstract:** With the increasing use of online teaching in schools, asynchronous online discussion (AOD) is becoming a common tool to facilitate interactions in online courses. However, very few studies explored using AOD in the context of Chinese language learning, including learning Chinese as a heritage language. To fill the gap, this article delineates the implementation and implications of AOD in an online Chinese heritage language course. A social learning platform named Yellowdig was adopted to conduct AOD, with two primary goals: community building and resource sharing. Students' reflections and feedback confirmed its social and educational benefits and indicated the promising utilization of AOD in other Chinese language courses of both in-person and online modes.

**摘要:** 随着线上教学的增加,为促进网络课堂的互动,异步在线讨论的应用越来越普遍。然而,包括华裔中文教学在内的中文教学对于异步在线讨论的运用研究依然较少。本文旨在讨论如何将异步讨论活动应用于华裔中文线上中文课程。该异步讨论活动在名为 Yellowdig 的教育社交平台上进行,以期达到两个目的:建立学习社群以及资源分享。学生的反馈肯定了该活动在社交、学习两大方面的益处,这也表明该活动可应用于其他线上或线下的中文课程。

**Keywords:** Asynchronous online discussion, social learning platforms, Chinese heritage language courses

**关键字:** 异步在线讨论、教育社交平台、华裔中文课

## 1. Introduction

Asynchronous online discussion (AOD) may be merely an ancillary component in in-person courses. However, it is positioned as “a central hub” for online course activities (Dennen & Wieland, 2007). When it comes to designing an online Chinese language course specifically for Chinese heritage language learners (CHLLs), it should undoubtedly serve

as one of the most critical components as well, given the learners' proficiency level in oral Chinese and the need to hone their reading and writing skills. Despite certain constraints that students may encounter, the benefits that students may reap from this type of online activity have been well documented in a plethora of studies. For instance, AOD could effectively reduce language learners' feeling of isolation and provide them opportunities to practice the language in a social environment (Comer & Lenaghan, 2013), which is much needed by language education in an online environment where meaningful face-to-face interaction could be limited.

Grounded in existing research findings, this article delineates how the AOD of an online Chinese heritage language (CHL) course was designed and implemented. A concrete example is used to present a more straightforward view. Student reflections are also discussed to provide further insight so that interested language instructors, administrators, or other stakeholders may make informed decisions regarding AOD in online teaching.

## 2. Literature review

Along with the growing popularity of online education, AOD has been widely adopted across many disciplines such as preservice teacher education (Ebrahimi et al., 2016; Im & Lee, 2003) and English as second/foreign language (ESL/EFL) education (Annamalai, 2017; Ware, 2004; Zhong & Norton, 2018). As the "beating heart" of online course activities (Sull, 2009), its value has been explored and confirmed by many pertinent studies.

Substantial evidence was presented in the extant studies to support the claim that the incorporation of AOD in online courses increased student interaction (Hammond, 2005). Particularly, introverted students or the students who used to be silent or peripheral participants in traditional classrooms tended to seize opportunities in AOD to voice their opinions (Alharbi, 2018; Arbaugh, 2000; Bolloju & Davison, 2003; Young, 2008). Hew and Cheung (2003) concurred that participants in online discussions feel more comfortable in expressing their thoughts more freely and descriptively (p. 13). Additionally, some relevant studies uncovered the other beneficial aspects of AOD in building a learning community, strengthening students' sense of belonging, and improving participants' critical thinking skills (Bendriss, 2014; Comer & Lenaghan, 2013; Liu, 2007).

Accompanying these encouraging findings, the existing studies also identified several factors that might affect the effectiveness of AOD in online courses. Fung (2004) found that students lacked interest in online discussions under the pressure of finishing required readings within a limited time. Therefore, she emphasized the significance of a reasonable timeframe and the relevance between the discussion questions and course topics. Some other studies highlighted the importance of explicit and theoretically informed discussion guidelines (Delahunty, 2018). In addition, timely response from peers was another major factor that affected students' participation in AOD (Cheung & Hew, 2004). Hew et al. (2010) conducted a comprehensive review of 50 empirical studies on AOD and

revealed some other contributing factors, including not seeing the need to participate, other participants' behavior, student personality, and technical aspects.

Despite the abundant research in this area, very few studies explored the utilization of AOD in Chinese language learning. Qian and McCormick (2014) examined the utilization of an online discussion forum among novice Chinese language learners (CLLs), and the findings confirmed its positive impact, enhancing learners' sense of belonging and providing support to conquer difficulties in learning Chinese. Wang and Vásquez (2014) employed Facebook as the AOD forum, which was proven to present pedagogical potentials in second language (L2) literacy practice among intermediate CLLs. Relevant studies on CHLLs are strikingly scarce. Only one study involved this group of learners (Zhang, 2009), investigating the usage of essay writing in an online discussion board among Chinese heritage and L2 learners. Research findings indicated that the activity might facilitate creating a supportive learning community among different groups of Chinese learners. Among the studies, the book by Liu (2022) comprehensively discussed how the Chinese language has been taught in emergency remote learning, including examples from different parts of the world. However, there is little discussion that specifically addresses online heritage language teaching which presents unique challenges and needs due to the student group's distinctive language profiles compared to non-heritage students.

In sum, both the constraints and affordances of AOD in distant learning have been extensively discussed in various disciplines. However, relevant research in Chinese language education in general, and in CHL teaching in particular, remains scant. Despite the paucity, all the conducive and empirically proven findings in different fields serve as a great reference point for the AOD design in this article.

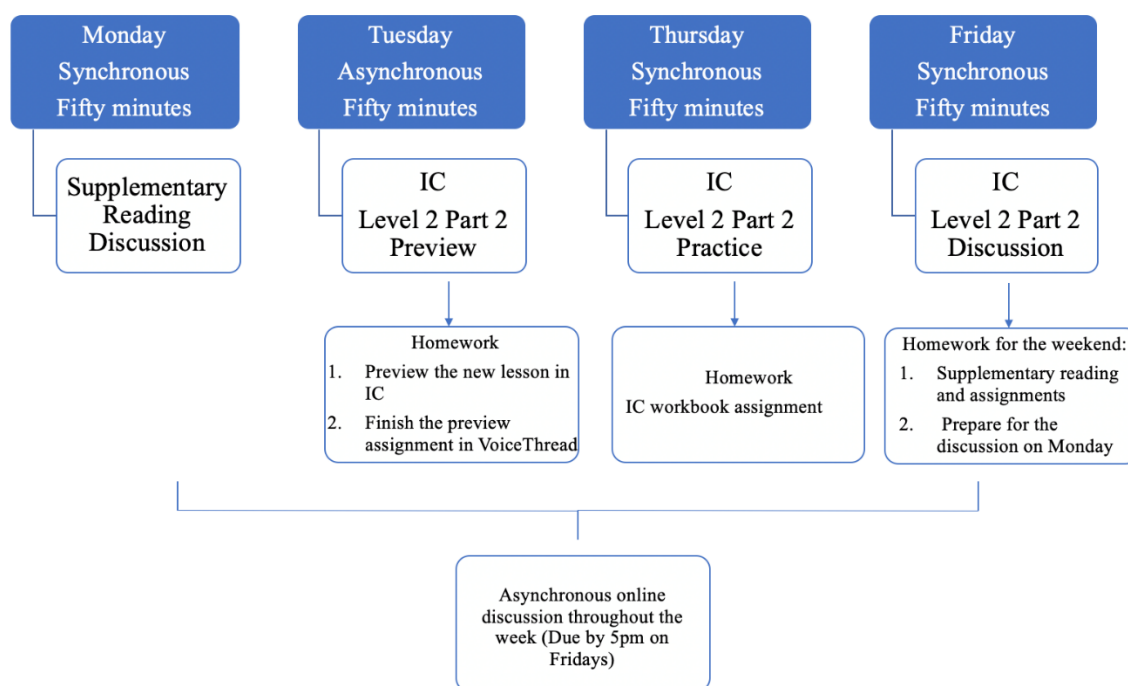
### **3. Overview of the course**

The designing and implementation of the online CHL course in this article took place at an American private research university with a quarter system where dual-track Chinese language courses have been offered with a long history. The component of AOD was integrated into a second-year (intermediate level) Chinese language course for heritage learners. There were 28 students enrolled in this course, 13 in one section and 15 in the other. All the enrolled students were CHLLs whose proficiency levels ranged from intermediate-mid to intermediate-high according to ACTFL proficiency guidelines (ACTFL, 2012). It should be noted that this course was offered remotely only during the pandemic but has switched to the in-person mode in the post-pandemic era.

The course met four days a week, fifty minutes for each session. Most meeting days (i.e., three out of four) remained synchronous with one day being asynchronous when the course moved online in Spring. The asynchronous mode was adopted primarily to alleviate the stress experienced by students who were geographically dispersed in areas such as California, Chicago, and Hong Kong, as the affordances of asynchronous instruction allow for learning that breaks the temporal constraints. Furthermore, the asynchronous mode is normally arranged for the first teaching day of a new chapter, a great fit for students of

different proficiency levels to self-study the basic vocabulary and grammar at their own pace and get ready for more meaningful practices in class. Consequently, the synchronous sessions may be devoted to task-oriented practices or discussions instead of drilling words and patterns that are tedious and less needed for CHLLs. Figure 1 illustrates the overall structure in which the two components were organized.

As indicated in the figure, this course used the textbook—Integrated Chinese (IC) Level 2 Part 2 along with the supplementary reading materials prepared by the instructor. Each quarter (i.e., ten weeks in total) covers six or seven lessons from IC. In spring quarter of 2020, the course started from Lesson 14 and finished the rest of the book. There were daily assignments due the next teaching day. For instance, Voicethread assignments were designed to guide students' asynchronous preview on Tuesdays. Besides these daily assignments, students were expected to carry out AOD on a designated platform, accounting for 15% of their final grades. How this component was designed and implemented will be outlined in detail in the following sections.



**Figure 1 Course Structure**

#### 4. AOD design & implementation

The decisions about the various dimensions of AOD in this CHL course were deeply rooted in the prior empirical studies as well as considering the CHLLs' needs. To illustrate, the ensuing sections present the utilization of the AOD in this CHL course from the following angles: 1) Goals, 2) Platform, 3) Design, 4) Implementation, and 5) An example.

#### 4.1 AOD goals

As discussed earlier, there are substantial benefits that students may gain from active participation in a well-designed AOD. However, the task per se or the platform that AOD is conducted on does not automatically lead to students' active and consistent participation. The elements affecting students' contribution to and learning outcomes from AOD should be factored into the design. Many studies suggested that curriculum designers not overload students within an online environment (Hammond, 2005). To put realistic and achievable expectations, the primary goals of the AOD in this course are two-fold:

- **Community-building:** As students use this space to interact with each other on a regular basis, it is hoped that a community could be built to provide social support, which seems to be especially important when classes are all remote.
- **Resource-sharing:** This space is intended to be where students share different types of outside-of-class resources relevant to the curriculum. Due to the high heterogeneity among CHLLs in terms of their linguistic and cultural repertoires, it is paramount to acknowledge and appreciate what each of them brings into the classroom, meaning that the curriculum should be built upon their “funds of Knowledge” (González et al., 2006). Additionally, this resource pool could be a venue for the instructor to know the students better before bridging the gap between in-class discussion and students' interests. In this sense, what students share in AOD will determine the content of the synchronous discussions.

#### 4.2 AOD platform

This course adopted a social learning platform named “Yellowdig” for the AOD component, primarily for four reasons.

First, Yellowdig has an interface similar to one of the most popular social networking websites—Facebook. Such similarity incorporates the communication that students are familiar and comfortable with into Chinese language learning. They intuitively know how to navigate the platform, how to make multimodal postings, such as texts, photos, emoticons, videos, and the like, and how to interact with each other (e.g., like and comment), which should reduce the learning curves that students might have otherwise. Further, these functions provide more lavish features for social learning (Huang & Chen, 2018) compared to the traditional threaded discussion boards (e.g., Canvas discussion board).

Second, Yellowdig is a social learning platform designed specifically for educational purposes and is inherently different from other social media tools such as Facebook and Twitter. As students prefer not to intertwine their academic studies and personal social lives (A & Gutsch, 2018; Jones et al., 2010), Yellowdig can serve as an ideal substitute that both inherits students' usual social habits and creates a separate social space for students to interact with each other.

Third, Yellowdig provides a very convenient and motivating grading system. It automatically grades students' participation according to the rubrics set up by the instructor in the system. Moreover, the platform may be seamlessly integrated into students' learning management systems (LMS), such as Canvas and Blackboard, so that the grades may be automatically synched in the LMS. Unlike traditional grading, Yellowdig intends to gamify the points-earning system, as students do not lose points but rather earn rewards for their contributions in the AOD. For instance, the instructor may design the rubrics in the system, allowing students to earn 100 points for a post, 80 points for a comment, 20 points for a "like" they receive from peers, and the like, with a weekly goal of 1000 points in total. The instructor may also require a minimum number of words in one post or comment. In addition to quantifying students' participation, the instructor may revoke the points if a post or comment is believed to be irrelevant, not well-thought-out, or does not contribute meaningfully to the conversation. This is to emphasize the quality of students' contributions to the AOD. Instructors indicated that the quality and quantity of students' posts in Yellowdig increased by more than 50% compared to other online discussion platforms (Gulinna & Gutsch, 2018, p.281).

Finally, the affordances of Yellowdig suit the aforementioned two goals of the AOD in this course. The utilization of Yellowdig could encourage students to be more actively engaged in participating in the AOD. The increased peer interaction is the premise for community building. Moreover, as maintained by Gulinna and Gutsch (2018), the layout of Yellowdig can promote learners to create a knowledge base for the entire class and utilize the shared resources in their future studies (p. 282), which is consistent with what this CHL course aimed to achieve. Figure 2 is a screenshot of Yellowdig that provides a look into the platform.

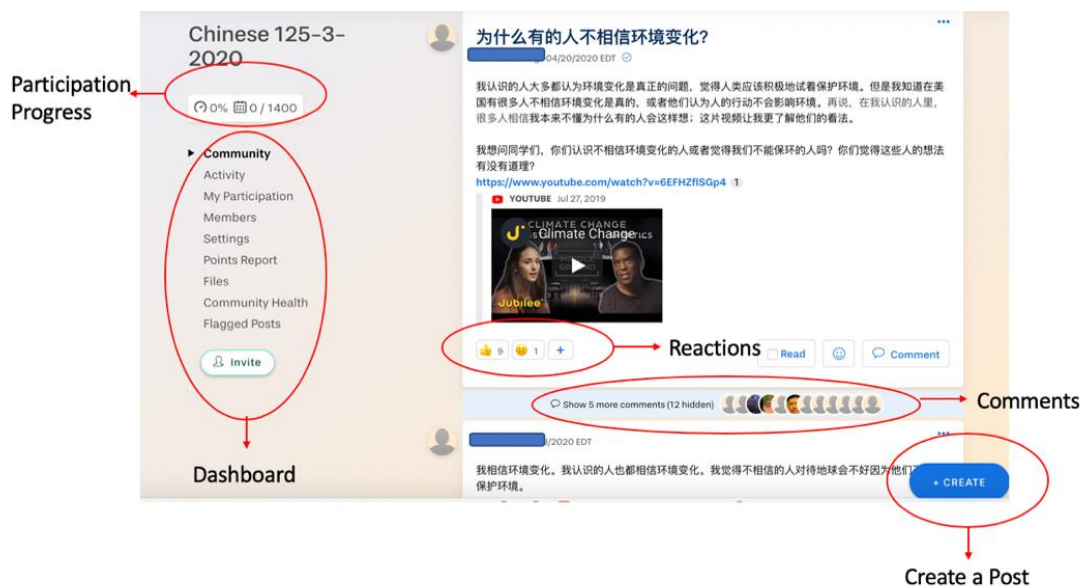


Figure 2 Yellowdig interface

### 4.3 AOD design

As alluded to earlier, merely using new technology or a fancy tool does not automatically assure the expected learning outcome. Many other factors, especially the curriculum design and pedagogical decisions, exert a much more substantial impact on students' performance in AOD. This section details how Yellowdig was used in this CHL course to achieve the two objectives mentioned above.

A commonly adopted practice when using AOD in various disciplines is that the prescribed discussion questions are posted on threaded discussion boards by instructors or TAs after learning a new concept, unit, or chapter. Then students are required to answer these questions and respond to at least two peers' posts. The flow of AOD is from teachers to students. Although well-intended, authentic and meaningful communication among students might be hard to realize as students are probably not interested in these questions in the first place. On top of that, most students are forced to contribute under the pressure of losing points. In contrast, Yellowdig in this course is utilized backward from student to teacher to alleviate such concerns. Specifically, it functions in the following two ways.

First, the Yellowdig platform is open for four days, starting from 5 p.m. on Mondays to 5 p.m. on Fridays. Students are expected to share resources (e.g., videos, articles, songs, or anecdotes) related to the weekly class topics. They are also required to briefly explain the reasons for, the main points of, and their reactions to the shared materials. The resources could be either in English or Chinese; however, students' annotations and comments should be in Chinese.

Second, the instructor skims students' posts after the platform closes at 5 p.m. on Fridays for two purposes: 1) To identify students' common mistakes in using Chinese and the areas for improvement in discussion participation so that the instructor could provide the whole class feedback when meeting synchronously. Chiu and Hew (2018) underscored the importance of teacher feedback in AOD, stating that more constructive and timely feedback can encourage learners to participate more in the discussion forum (p. 18); 2) For the instructor to pinpoint the most intriguing, engaging, and thought-provoking topics based on the number of postings and comments. Subsequent supplementary reading materials are prepared based on such knowledge, in an attempt to bridge the gap between course materials and students' interests. Finding the appropriate reading materials is vital as selecting the right topics is one of the major contributing factors to the success or failure of any discussion (Bakar et al., 2013). Following that, students are expected to read the article(s) and complete the corresponding assignments so that they may readily participate in the synchronous discussions on the next teaching day.

It is noteworthy that the AOD interaction occurred primarily among students themselves while the instructor remained silent throughout the open period. In terms of the impact of instructor intervention in AOD, the research found that students participated less as an instructor's posts increased (Mazzolini & Maddison, 2007), and students interacted more with the instructor rather than with their peers (An et al., 2009). Participants expressed their preference not to have the instructor participate in their online discussions

as teachers' omnipresent participation can be oppressive to certain students (Fauske & Wade, 2003). Consequently, Andresen (2009) explicitly pointed out that an instructor should "back off" and "spend his/her time preparing materials and carefully thought-out discussion questions and topics that relate to learning objectives" (p. 251). Meanwhile, the instructor's critical role in maintaining and facilitating students' AOD was also underscored by the pertinent studies (e.g., An et al., 2009; Zhu, 2006). Dennen (2005) maintained that it was an act of balancing in establishing instructor presence as the most favorable presence seemed to be letting students know that their messages were read without taking over the discussion (p. 142).

Drawing upon the research findings and out of pedagogical concerns, the instructor decided not to participate in students' AOD to avoid the negative impact of instructor presence indicated in prior studies. To cultivate and sustain students' discussion on Yellowdig, the instructor built her presence primarily outside AOD in lieu of during AOD, concentrating more on designing the discussion guidelines, reading students' posts, finding appropriate supplementary reading articles, and providing feedback.

#### 4.4 AOD implementation

Prior to the start of the new quarter, an email was sent out to the enrolled students, introducing the discussion site—*Yellowdig*—and inviting them to get acquainted with each other and share their life and concerns about taking an online language course. Students were encouraged to explore the site and use the multimodal resources to make their self-introductions more visual and interactive. Although there were two sections for the course, only one community was created on Yellowdig as many students across sections took Chinese classes together in the previous two quarters and already knew each other. Additionally, a larger group might result in more resources shared in the community. Therefore, students have more options as to whom to interact with and what posts to read.

On the first day of the quarter, the instructor shared a document named "Yellowdig Discussion Guidelines" with all the students. The guidelines consisted of four components: 1) A brief introduction to Yellowdig and its weighted percentage; 2) Purpose of using Yellowdig AOD; 3) Yellowdig discussion protocols. In addition to laying out the expectations for the content of posts, the protocols also reminded students of the strategies of effective and civil communication online. For instance, it emphasized the importance of reacting to others' posts, which was not only an encouraging way to contribute to the community but also signified to the instructor what they were interested in. It also suggested students not wait until the last minute to post. The earlier they started posting, the higher chance they would get a reply as it provided ample opportunities for their peers to share their comments; 4) The overall rating scale of AOD, including four areas: quality, quantity, consistency, and etiquette. The quantity part was automatically measured by Yellowdig as discussed earlier. However, the rating scale reminded students that the instructor evaluates the other three aspects as well. For instance, the instructor observed whether students made steady and consistent contributions throughout the open days of Yellowdig to keep the conversation flowing. The quality fell into two sub-areas: language and content. The instructor assessed if there were errors in wording and whether the posts



were logically organized and supported by details and examples. Etiquette was emphasized as well as students were expected to interact with each other respectfully, politely, and insightfully. Please see the complete content of the file in Appendix 1.

The first week was allocated for testing out the platform, the guidelines, and the reward-earning system in Yellowdig. Therefore, students' performance of that week was not counted into their final grades. An anonymous survey was administered among students over the first weekend so that the instructor could identify the problematic areas and make in-time adjustments accordingly. Overall, the piloting went smoothly, and students' participation in the community was satisfying. Surprisingly, one student even explored a new function on Yellowdig that neither the instructor nor other students had discovered—polling. This simple polling that student initiated among her peers, investigating their opinions of eating late-night snacks as the theme in the first week was health and lifestyle (IC Level 2 Part2, L14). Seventeen responses were received in total, building a foundation for further discussion in class.

Nevertheless, there were still two students who remained reticent in Yellowdig: one did not participate at all, and the other only reacted to two peers' postings with a smiling emoji. The instructor had foreseen such inactiveness when the institution announced during the spring break that all the undergraduate courses' gradings would be "pass or fail" to replace letter grades due to the pandemic's impact. Therefore, some students might feel much less motivated to make the greatest endeavor in their studies. To encourage these two students to be more engaged, the instructor sent out emails, inviting them to share more actively in the rest of the quarter.

The survey results also revealed a couple of problems and corresponding fine-tuning was made.

First, students reflected that Yellowdig counted words based on the number of spaces between the words, which apparently does not apply to the Chinese writing system. Hence, some students did not receive credits because the system erroneously considered that their postings were short of words although their postings met the requirement. Due to the flaw in the system per se, the instructor had to give up the requirement of a minimum word count starting from week two.

Second, students expressed that the weekly goal was a bit overwhelming as they were pressured to post as many as possible to earn the rewards; however, they neglected the quality of their contributions. To strike a better balance between the quality and quantity of students' posts and make the weekly goal more manageable, the instructor revised the reward-counting system from 1400 points in total to 800 points as reflected in Table 1.

**Table 1 Rewarding System**

Category	Rewards
A posting with 80 words minimum→ A posting	100 points
A comment with 50 words minimum→A comment	80 points
Receiving one comment	50 points
Receiving other reactions (e.g., emoticons)	10 points
Weekly Goal	1400 points→800 points (The surplus points may be accumulated for the following week.)

#### 4.5 AOD—An example

This section uses Lesson 15—*Gender Equality*—from IC as a concrete example to present what students shared on Yellowdig and how the platform connected synchronous and asynchronous discussions.

Gender equality is never an easy topic. The textbook’s content consists of two components: the story between Xuemei’s (the character’s name) uncle and his wife and a brief dialogue about Chinese men soccer. The text itself is not that difficult for CHLLs in this course. Evidently, they need supplementary materials to expand their readings and enrich relevant discussions. However, if not meticulously designed, the discussion questions could easily be too broad and general that students feel distant from such a topic and do not know what to say. Alternatively, the questions could be too challenging because language learners, especially the ones with lower proficiencies, do not have adequate words and grammar to articulate their ideas fully.

Throughout the four days that Yellowdig was open that week, students posted various types of materials about gender inequality, including relevant news articles, YouTube videos, and movie clips. The relevant topics that students submitted fell into a wide range as well. The best-received ones included 1) Gender inequality in Disney movies, 2) Social expectations for women, 3) Toys and gender roles, 4) Men’s perceptions of gender issues, 5) Kids’ perceptions of gender issues, and 6) Students’ anecdotes. Examples of the posts could be found in Appendix 2.

Built upon students’ AOD, the instructor eventually decided to adopt a news article titled “If I were a boy,” which was about an online feminist campaign initiated by a website named Elite Daily. The article was selected because 1) this article only needed minimal adaption to better match the CHLLs’ Chinese proficiency, and 2) the relevant discussions about this article allowed integrating many of the topics from Yellowdig. The questions (originally in Chinese, translated into English in this article) used in the subsequent synchronous session are listed below, which primarily stemmed from or were inspired by students’ discussion on Yellowdig.

- 你遇到过男女不平等的情况吗？比如在你家、实习的时候、学校或者其他社交场合？如果愿意的话，请分享你的经历。

Did you encounter gender inequality in your family life, internship, academic studies, or your social life? Please share if you feel comfortable.

- 如果你是男孩/女孩，你会跟现在不一样吗？为什么？请举例。  
Do you do things differently if you were a boy/girl? Why? Please give examples.
- 男女不平等常常让男性处于优势，那男女平等对男性有好处吗？他们也应该争取男女平等吗？为什么？  
Men are generally privileged in this society. Should they also strive for gender equality? Could they benefit from gender equality? Why?
- 你愿意做家庭主妇或者家庭煮夫吗？是浪费你的才能或高学历吗？如果你是男性/女性，你会有不同的选择吗？  
Is it acceptable for you to be a housewife or a soccer dad? Is it a waste of your talents and diploma? If you were a man/woman, will you decide differently?
- 你能接受你的儿子玩芭比娃娃、你的女儿玩赛车吗？  
Is it acceptable to you if your son likes playing with barbie dolls and your daughter enjoys car-racing?
- 还有哪些性别刻板印象？比如在公司、学校、好莱坞电影里？请举例。  
What are the other gender stereotypes in different areas such as industry, academia, and Hollywood movies? Please give an example.

## 5. Students' reflections

Students were invited to submit a reflection on their Yellowdig discussions and participate in an interview with the instructor. To avoid conflicts of interest, both the reflections and interviews were scheduled at the end of the quarter after the instructor submitted all the grades. Specifically, they were encouraged to reflect on the aspects including but were not limited to 1) Their overall experience, 2) The beneficial aspects of Yellowdig discussion, 3) The drawbacks, and 4) Their suggestions. Eleven students in total submitted their reflections, and four students voluntarily participated in the individual interviews.

Two students indicated that their experience on Yellowdig was OK and candidly admitted that their participation was primarily driven by the weekly point requirements they needed to reach. Nevertheless, the rest reported rather favorable attitudes towards the AOD, confirming the social and educational benefits of participating in the Yellowdig discussions. As one summarized, "I think that during the course of online classes, yellowdig [sic] discussions can be a useful and productive way for students of class to interact with each other as well as practice their Chinese."

In the social aspect, students' reflections revealed that Yellowdig afforded space for increasing peer interaction while they were geographically dispersed, and they might learn more about other classmates in general, confirming research findings in prior studies (e.g., Hammond, 2005; Zhang, 2009). For instance, one student commented, "My overall experience with Yellowdig discussions was positive. I was able to interact with my classmates even though we did not see each other in person. Another student expressed, "Given the nature of online learning, I find it a nice way to interact with my peers."

Despite the overall positive social experience, one problematic aspect was identified in the students' reflection. Some peers' superficial comments made students' experience in the Yellowdig discussion less enjoyable. One student conveyed:

Some classmates would post very thought-provoking discussion posts that I could tell actually showed that they cared; however, others (particularly in the replies), would leave brief comments just to say they did the assignment. It makes having genuine conversation difficult, and I hate that.

Students' feedback confirmed the findings by Hew et al. (2010) that peer behavior is one of the factors that affect students' learning experience in AOD. Although the course designers were attentive to this aspect when mapping out the guidelines for Yellowdig AOD, some students still put more weight on quantity compared to quality. In response to this problem, instructors may consider making the AOD activities much lower-stakes so that students would be less pressured to post copiously but more motivated to discuss thoughtfully.

Intriguing and resonating topics shared in Yellowdig discussions is another factor that contributed to students' positive social and learning experience. Students shared that the discussion-format style of Yellowdig gave them the chance to interact with interesting topics and concepts. One student reflected, "I think it was the right decision to have yellowdig [sic] posts focus on the topic of the lesson, because it gives the users something to post about." Students particularly appreciated the opportunities to make connections from the lesson texts to the world they live in and to things that are more relevant to them. As reflected in their comments, relating the materials learned in class directly to real-life events was intriguing. One student concurred and summarized in the reflection:

Overall, I actually really liked the concept of the Yellowdig discussions because a lot of my classmates would bring up interesting questions, information, or viewpoints about the topics that we are currently covering in class and I think that it helped me make connections from our text to the world we live in and to things that are more relevant to us.

In addition to relevance, students' reflections and interviews indicated that the Yellowdig discussion expanded the scope of the topics as well. One student commented, "I think the Yellowdig discussion is quite interesting and can help promote exploration of topics that students might otherwise not be exposed to, while practicing Chinese at the same time." As conveyed in their reflections, students particularly enjoyed discussing topics surrounding Asian Americans with their peers. Students also appreciated the freedom and autonomy they had in Yellowdig, as one student reflected, "I felt Yellowdig discussions were a useful and interesting way to interact with classmates. I liked being able to freely choose what type of content we shared with each other and discussed." Another student added, "The ability to share articles and interesting findings with my classmates made Yellowdig more purposeful." Students' reflections above echoed the importance of topic selection in AOD emphasized in prior studies (e.g., Andresen, 2009; Bakar et al., 2003). When instructors are unsure of students' interests, giving them certain autonomy in topic selection could be a feasible and well-received method.

The supplementary reading articles based on students' Yellowdig discussions were overwhelmingly well received among students, which was another rather encouraging finding. This further confirmed the importance of selecting the appropriate topic and materials as discussed above. Many students brought up that the supplementary materials were really interesting and captivated their interests. They truly enjoyed reading these articles, putting thoughts together, and making insightful responses to the reading assignments' questions. One of the students even rated it as her favorite part of the course. Additionally, compared to the relatively short posts in Yellowdig discussions, students found supplementary readings and corresponding assignments afforded them a venue to elaborate their thoughts further. One student commented:

I enjoy listening to/reading the supplementary material that laoshi finds and responding to it in an essay. This gives me more time to put some thought and effort into one response.

Additionally, the asynchronous nature of the Yellowdig discussion made the task more manageable for the students in different time zones. One student commented, "Yellowdig discussion was a good way to share ideas and communicate because I liked being able to view other people's content and respond at any time that worked for me."

The challenges of Yellowdig participation primarily rested in two areas. First, some students found Yellowdig very helpful to their Chinese learning as they had to constantly read and familiarize themselves with Chinese characters, which confirmed the pedagogical potential of AOD in Wang and Vásquez (2014). This is particularly useful for heritage language learners due to their relative weaker proficiency in reading and writing compared to their listening and speaking. However, the Yellowdig discussion posed some challenges to the students with relatively lower Chinese proficiency. Therefore, Google Translate was frequently used, which was energy-draining to them. Some students expressed that a lack of knowledge of many new words in Yellowdig discussions sometimes discouraged them from participating. Second, students expressed the difficulty they ran into in writing on discussion boards. As one student explicitly shared:

I realized it's a lot more difficult than I thought to transfer between conversational Chinese (which I am already proficient in), to presentation/formal Chinese, which I am still struggling to learn.

One student indicated that it often took him/her a while to plan out and organize what she/he wants to say in a post or comment. Another student echoed that using Chinese to post made it more difficult to convey complex ideas. As pointed out in pertinent studies, the writing on discussion boards is a different genre of writing, a hybrid mode of spoken-like/written-like communication (Delahunty, 2018). The challenges that students met in this course necessitate more meticulously designed tasks that involve students in authentic online discussions in the target language community. Developing students' digital literacy in Chinese to appropriately communicate online should be an integral part of Chinese language education.

Second, the amount of schoolwork they received from other courses, along with other Chinese assignments, was the main deterrent that prevented them from participating. This is consistent with the findings in Fung (2004) that students usually lack interest in AOD due to the limitation of time. To encourage student participation, some students suggested making the point totals more achievable and the bar low enough that they could craft insightful responses. Despite the intended gamification of the grading system, many students still felt pressured by the weekly goal. Therefore, they sometimes just provided superficial comments to get the points. Another suggestion was listing posts based on categories, such as sports and home life, to make the discussion more organized and easier to follow. This may be realized by the “hashtag” function on Yellowdig, which curriculum designers and Yellowdig users should further explore. Moreover, it was recommended by some students to encourage participants to use different types of media on Yellowdig, such as polls, photos, and videos, to keep the discussion intriguing.

## 6. Conclusions

AOD has been a common feature of online education, while research on the utilization of AOD in Chinese language learning remains alarmingly scant. This article demonstrates an effort to integrate this component into an online CHL course. The social learning platform, Yellowdig, was selected to conduct the AOD out of pedagogical considerations, allowing the digital natives to discuss with each other in ways they are used to, as well as providing them a social space that is separate from their private social networking accounts. Decisions about various dimensions of AOD were premised on the empirically supported findings from prior studies. The students’ overall positive reflections confirmed that the Yellowdig discussion fulfilled its designated goals—community building and resource sharing—and indicated the promising utilization of AOD in other CHL courses or the advanced-level Chinese language courses in the non-heritage track. Though AOD was used in an online course, the findings could serve as useful references for in-person courses as well.

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## **Appendix 1**

### **Guidelines for Participation and Interaction on Yellowdig**

#### **Yellowdig (15%)**

We are going to use Yellowdig for our asynchronous discussion. You may access the discussion platform through Canvas. In this course, Yellowdig is primarily used for our weekly out-of-class discussion among students. Please check the guidelines below for your participation and interaction with your peers on Yellowdig.

#### **Purposes of Using Yellowdig**

##### **1) Community-building:**

We would like to have a space to interact with the peers, which is especially important in these uncertain times when we have class remotely. Additionally, Laoshi would like to provide you a space to discuss topics of interest to you with your peers rather than topics imposed by Laoshi. Points will be assigned to you for acknowledging your contribution and social interaction. There is a built-in grading system in Yellowdig. Besides quantity, there are some other areas that Laoshi looks at when evaluating your participation. The rating scale is laid out in the last section of this guideline.

##### **2) Resource-sharing:**

Laoshi would like to provide you with a platform to share different types of outside-of-class resources relevant to our curriculum. Additionally, Laoshi would like to use your discussion posts as a topic-pool and foundation for our in-class discussion. That means Laoshi will read your posts, identify the topics that interest you most, and incorporate them into the supplementary reading and in-class discussion. In this sense, what you will share on Yellowdig will determine the content of our synchronous sessions.

#### **Yellowdig Discussion Protocols**

1. You are expected to share resources (e.g., videos, articles, songs, photos, your anecdotes) that are interesting and weekly theme related.
2. In addition to posting the resources, please also briefly explain the reasons you would like to share, the main points, and your reactions to what you share, just like what you normally do when you share something on the other social media such as Facebook or Twitter. The resources could be either in English or Chinese; however, your annotation and comments should all be in Chinese.
3. Don't forget to check others' posts and react (e.g., like it and comment). As mentioned previously, this is supposed to be a community where you share information, exchange opinions and conduct discussions. Additionally, you will not only help your peers earn points but also let Laoshi know what interests you.
4. Your points could be revoked. The Yellowdig point system encourages high-quality comments. Laoshi can revoke a student's points if Laoshi believes a comment is not relevant, well-thought-out, or does not contribute meaningfully to the conversation. (For example, points will be revoked if you simply put a comment without further explanation—你说的很有意思。)
5. Based on research results, the earlier you post, the higher chance you will get a reply as it provides ample opportunities for your peers to comment. Don't wait until the last minute before the deadline. Normally, the discussion platform will be closed at 10 am on Fridays.

Please participate consistently throughout the open period. The deadline is marked in the weekly schedule as well.

6. The first week of discussion will not be graded but for practice purposes. You will gain feedback that helps you prepare for future Yellowdig discussions.
7. You and Laoshi will conduct a reflection on Yellowdig activities together through anonymous surveys and open discussions and make the adjustments accordingly.

### Rating Scale

	Quality		Quantity	Consistency	Etiquette
	Language	Content			
<b>3</b>	Minimal errors in wording A wide range of precise vocabulary and complex sentences Appropriate cohesive devices that link the ideas or information into a paragraph or paragraphs The posting is clearly presented and is easily understood by others	The posting is well and logically organized The posting is supported by details, examples, and/or evidence The posting is intriguing and inspiring to others	Actively participate in the conversations Frequently view peers' posts Respond to diverse peers' posts Very informative	Steady and consistent participation throughout the open days to keep the conversation flowing	Show appreciation (Acknowledge and appreciate your peers' contribution.) Prompt response to peer posts Interact with others respectfully, politely and insightfully
<b>2</b>	Some errors in wording A range of general and specific vocabulary and some complex sentences Strings of sentences and occasionally a short paragraph with appropriate cohesive devices The posting is appropriately presented and is generally understood by others	The posting is adequately organized The posting is supported by some details The posting contributes ideas and somewhat facilitates conversations	Participate in the conversations Read most peers' posts Attempt to respond to different peers' posts Somewhat informative	Somewhat steady and consistent participation during the open time to facilitate the conversation	Show no sensitivity to others' perspectives Show respect and sensitivity to peers' backgrounds Respond to peer posts in a timely fashion
<b>1</b>	Many errors in wording General and sometimes specific vocabulary and simple sentences Strings of sentences without cohesive devices The posting is NOT clearly presented and is understood with some difficulty by others	The organization is problematic The posting is NOT supported by details The posting is a minor contribution to the conversation	Somewhat participate Read some peers' posts Respond to a few peers' posts Missing information	Inconsistent participation with little contribution to the conversation	Frequently not responding to peer posts Show little respect or sensitivity to peers' views and backgrounds
<b>0</b>	Too many errors in wording Limited and general vocabulary Discrete and simple sentences The posting is understood with great difficulty by others	The posting is poorly organized The posting is irrelevant or simply a repetition of others' statements There is no contribution to the conversations	Minimum participation Minimum effort to write a post	Last-minute posting or commenting	Show minimum effort to write a response (e.g., 我同意你的看法。谢谢分享。你的看法很有意思。) Show no respect or sensitivity to peers' views and backgrounds

Adapted from A & Gutsch (2018)

## Appendix 2

### Examples: students' posts about gender equality

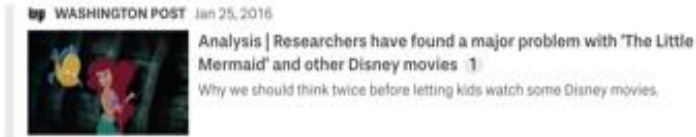
#### Disney电影的性别不平等

1/5/2020 EDT

我一看到 [redacted] 的视频就想到这个题目了。孩子们都从小时候开始看Disney的电影，特别是他们的公主电影，像Cinderella, The Little Mermaid, Mulan等等。但是这篇文章说很多这些电影有重男轻女的观念，会影响小孩子对男女社会地位的想法。

关于这些电影和性别不平等，你们的看法是什么？孩子们可以通过什么其他的方式学到社会的性别角色 (gender roles) ?

<https://www.washingtonpost.com/news/wonk/wp/2016/01/25/researchers-have-discovered-a-major-problem-with-the-little-mermaid-and-other-disney-movies/>



Show 1 more comment

#### 我最喜欢的电影

04/15/2020 EDT

这个星期的主题是“男女平等”。这个主题使我想我长大的时候。我以前很想当男孩，因为我觉得男孩的生活比女孩的生活好多了。我以前想男孩比女孩厉害因为他们能打功夫也可以搬很重的东西。相反，我的外公跟我说女孩需要学怎么做饭和洗衣帮她的家庭。所以我想当男孩好多了。可是我一看到木兰的电影，我的想法变了。她是一个厉害的战斗士，也是一个好女儿。她什么都能做。她是我第一的榜样。这个视频会介绍我为什么爱木兰的故事。

<https://www.youtube.com/watch?v=xrwUSKEj6-Y>



Show 2 more comments

## 小孩子对性别的看法

04/14/2020 EDT

我最近看了这个视频。在介绍一些不同的国家的小孩子。他们都描述他们为什么喜欢当男孩或女孩。我觉得这个视频很有意思：有的孩子的回答很好笑，有的很深刻，等等。你们觉得这些孩子的回答为什么都这么不同？

<https://www.youtube.com/watch?v=2B3ea7IGwLA>



5 0 1 +

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04/15/2020 EDT

In reply to Kenneth Wang's comment: "我跟你完全同意！我觉得小时候的经验对人..."

## 孩子的玩具和性别角色

04/15/2020 EDT

我已看到 [redacted] 话题也就开始想到我自己小时候对性别角色 (Gender norms) 这个观念。我们小的时候都玩过玩具，可家长传统上都不允许男孩子与女孩子玩儿一样的玩具。比如说，男孩子只能玩儿乐高积木 (legos) 而女孩子只能玩儿芭比娃娃 (Barbie Dolls)。现在，越来越多美国家庭开始不管他们孩子要玩儿什么玩具。

我就想问大家，你们认为玩具会对孩子的性别角色观念 (gender norms) 有影响吗？如果你是一位家长的话，你会控制 (control) 孩子玩什么玩具吗？

2 1 +

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04/16/2020 EDT

我觉得每一个东西都会影响你的孩子。比如说，电视，玩具，学校，朋友，等等都会影响孩子。但是，对他们影响最大是你教的。我觉得我的孩子喜欢什么玩具，我都会让他们玩。最重要是你自己教他们怎么做一个人。

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