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### **Students' Perception on Constructivist Learning Environment in Language, Society and Culture Course Design**

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#### **ABSTRACT**

Creativity and innovation are the keys to facilitate the different needs of students in English Language Teaching. In order to facilitate students' creativity and innovation, the Department of English Language Education, Universitas Islam Indonesia offers Language, Society and Culture coursework in fifth semester which produces short documentary films. The coursework is project-based and designed based on the four aspects of a constructivist learning environment. This study describes how students perceive the constructivist learning environment of the course design. By using Constructivist Learning Environment Survey (CLES), this research involves 31 students taking the coursework in academic year 2015/2016 as respondents. The data were collected from September 2015 until January 2016 and analysed by using descriptive statistics. Means of each items are rated from strongly positive to strongly negative. The study reveals positive results in some items of the four aspects of a constructivist learning environment. In negotiation, the results are positive for asking others' ideas, talking sensibly to solve problems, and trying to make sense others' ideas. In prior knowledge, the results are positive in the way that learning environment makes the students think about real life problems and their interest. In autonomy, the students perceive that they think hard about their own ideas and solutions, and decide the time to an activity. Finally, in student centeredness, the results are positive in the way the teacher expect them to remember important ideas, insist the activities be completed on time, and show them correct method in problem solving and in the way the students learn teacher's method in doing investigation.

*Keywords:* Constructivist Learning Environment Survey, Course Design, Project-based Learning

## Introduction

Creativity and innovation are the keys to facilitate the different needs of students in English Language Teaching. Robinson (2006) on his famous TED Talk mentions, "Creativity is as important now in education as literacy and we should treat it with the same status." His statement begins the spirit to integrate creativity in various fields of education including instructional design. In the context of English language teaching and learning, creativity has been integrated in the activities for English as a Foreign Language Classroom. Office of English Language Programs (2013), for example, publishes "Create to Communicate" which includes lesson plans integrated with visual arts.

In order to facilitate students' creativity and innovation, Department of English Language Education, Universitas Islam Indonesia offers *Language, Society and Culture* coursework in fifth semester which produces short documentary films. The creative process in creating the documentary films is expected to fulfil the students' need in creating their own authentic materials to be published in social media. The coursework is project-based and designed based on Taylor and Fraser's (1991) four aspects of a constructivist learning environment: negotiation, prior knowledge, autonomy and student-centeredness. Does the course design demonstrate positive results in the four aspects of a constructivist learning environment? This study describes how students perceive the constructivist learning environment of the course design.

## Literature Review

### Constructivist Learning Environment

Classroom learning environment has gained popularity as the subject of research in epistemological assumptions of teaching. From these research, Nussbaum (1989) highlights the shift on assumptions underpinning the classroom learning environment from traditional teacher-centered, didactic approach to empiricist-positivist and rationalist views that knowledge is 'discovered' by scientists, in much the same way that discovery of new lands by the explorers. For individual learners, it has been considered that meaningful learning is:

"a cognitive process of making sense, or purposeful problem-solving, of the experiential world of the individual in relation to the totality of the individual's already constructed (cultural, scientific, mathematical) knowledge" (Taylor and Fraser, 1991)

From the statement, it can be inferred that meaningful learning involves dynamic aspects of knowledge transfer, that is the combination of a cognitive process of making sense and problem solving with the knowledge that has already construed.

In the field of instructional design, objective conception on knowledge transfer from teachers to students is also widely accepted. However, this conception is challenged by Wilson (1996) who mentions that the way how people view of knowledge influence the way people view instruction. As a consequence, the traditional view of instructional design does not suffice to explain the dynamic aspects of knowledge transfer. He highlights the notion that instruction should be seen as an environment where learning occurs. Supporting Wilson's (1996) view, the design of constructivist learning environment is proposed by Jonassen (1999). In this constructivist view, knowledge is assumed to be "individually constructed and socially coconstructed by learners based on their interpretations of

experiences in the world (Jonassen, 1999, p. 217).” The design of constructivist learning environment, therefore, aims to accelerate conceptual development and problem solving of a project-based learning design. Jonassen (1999) believes that the model for designing constructivist learning environment includes:

“a problem, question, or a project as the focus of the environment, with various interpretative and intellectual support systems surrounding it” (p.217)

These intellectual support systems consist of: (1) related cases and information, (2) cognitive tools, (3) conversation/collaboration tools, and (4) social/contextual support systems as what is described in Jonassen’s (1999) model for designing constructivist learning environments (CLEs).

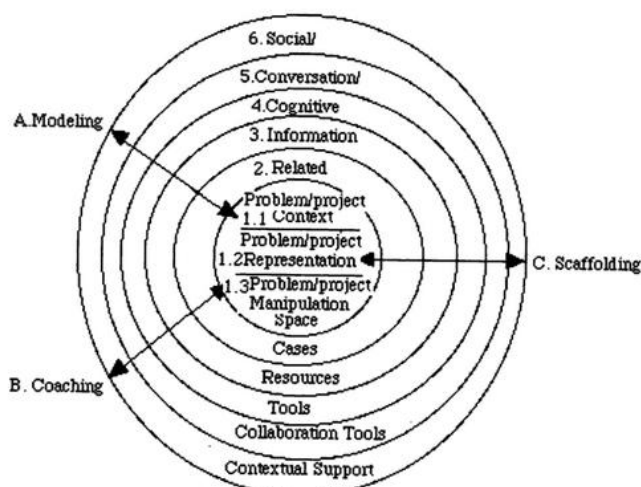


Figure1. Jonassen’s (1999) Model for Designing CLEs  
 (<https://constructivisminelt.wikispaces.com/Constructivist+Learning+Environments?responseToken=aeceb22d18ffda1568de8f8031563ed>)

As it is described in Figure 1, CLEs consist of several interdependent components: a problem project space, related cases, information resources, cognitive tools, conversation/collaboration tools and social contextual supports. In contrast to reproductive learning as what is offered by objective conception of instructional design, CLEs offer personal and/or collaborative knowledge constructions and problem-solving outcomes. In addition, CLEs theory also elaborates modelling, coaching and scaffolding as instructional activities to support learning (Jonassen, 1999).

Table1  
 Jonassen’s (1999) Supporting Learning in CLEs

<i>Learning Activities</i>	<i>Instructional Activities</i>
Exploration	Modelling
Articulation	Coaching
Reflection	Scaffolding

From Table 1 it is inferred that a CLE involves higher order thinking skills because it requires learners to explore their idea, articulate what they are doing, and reflect on the

reason of their actions in order to “explain the strategies they use to support knowledge construction and metacognition” (Jonassen, 1999).

### Constructivist Learning Environment Survey

As CLEs theory is developed into a model, research on classroom environment have been done, mostly on the assessment and improvement of teaching and learning within the context of traditional epistemology (Taylor and Fraser, 1991). In order to help researchers to assess the degree of consistency in a constructivist epistemology, Taylor and Fraser (1991) develop an instrument called *Constructivist Learning Environment Survey (CLES)*. CLES has four scales which were developed to measure important aspects of a constructivist learning environment.

Table 2  
*Taylor and Fraser's (1991) Description of Four Scales in CLES*

Scale Name	Description
Autonomy	Perception of the extent to which students control their learning and think independently.
Prior Knowledge	Perception of the extent to which students' knowledge and experiences are meaningfully integrated into their learning activities.
Negotiation	Perception of the extent to which students socially interact for the purpose of negotiating meaning and building consensus.
Student-Centeredness	Perception of the extent to which students experience learning as a process of creating and resolving personally problematic experience.

CLES can be used to investigate constructivist teaching/learning approaches in the learning environment and evaluate how students perceive the course designed with constructivism approach.

### The Course Design

The course was designed as project-based learning for 4 credits and the sessions were set for 2x 100 minutes every week. There were 28 sessions with mid semester and final semester assignment submission. Students were divided into six groups. By the end of the course, the students were able to produce six short documentary films related to the central topic of the course “Identity” by taking the perspective on poststructuralist theories on language, subjectivity and positioning and sociocultural theories of language learning (Norton and Toohey, 2011). The design implemented Jonassen's (1999) Supporting Learning in CLEs.

Table 3  
*Session, Instructional Activities, and Learning Activities in Language, Society and Culture Course Design*

Session	Instructional Activities	Learning Activities
1	Introduction to the course	Students were informed on the course outline and syllabus

Session	Instructional Activities	Learning Activities
2	Modelling: Language, society and culture in general	Exploration: Students were introduced to the definition of language, society and culture
3	Modelling: Documentary films in general	Exploration of project: Students were introduced to documentary films in general and were divided into 6 groups
4	Modelling Topic 1: Language, Identity and Communities of Practice (Paltridge, 2015)	Exploration: Students discussed on language, identity and belonging
5	Articulation: The case of Kylie Kwong, Princess Mary of Denmark	Coaching: The lecturer helped students to find their own case
6	Reflection: Identity and Language Education	Scaffolding: Students reflected their own case in language education
7	Articulation: Short documentary films discussion ("Spirit of the Language", 2013),	Coaching: The lecturer helped the students to notice elements of short documentary films <a href="https://www.youtube.com/watch?v=i4eIPbyzvMw">https://www.youtube.com/watch?v=i4eIPbyzvMw</a>
8	Modelling Topic 2 : Identity, Language Learning and Social Change (Norton and Toohey, 2011)	Exploration: Poststructuralist theories of (1) language, (2) subjectivity, and (3) positioning; Sociocultural theories of language learning
9	Articulation: Imagined Communities and Imagined Identities ((Norton and Toohey, 2011)	Coaching: Sociolinguistics and Identity, Pragmatics and Identity, Discourse Analysis and Identity
10	Reflection: Social Media Activities	Scaffolding: Identity represented in Social Media
11	Quiz on Topic 1 and Topic 2	
12	Modelling: How to Write Short Documentary Film Proposal (Rosenthal,2002)	Exploration: Students prepared for pre-production of their project
13	Articulation: How to Write Short Documentary Film Proposal (Rosenthal,2002)	Coaching: The lecturer helped the students with the template
14	Reflection: Relating the theories with theme of the films, film statements, plot	Scaffolding: Students created their first draft of their proposals

Session	Instructional Activities	Learning Activities
	and narration	
Mid-semester Assignment: Proposal of Short Documentary Film Submission		
15	Modelling Topic 3: The Symbolic Dimensions of the Intercultural (Kramsch, 2011)	Exploration: Students discussed about three dimensions of symbolic competence: symbolic representation, action and power (Kramsch, 2010)
16	Articulation: Symbolic Perspective on Intercultural Competence	Coaching: The lecturer helped the students to be aware of the importance of intercultural competence
17	Reflection: Symbolic dimension of intercultural competence	Scaffolding: The lecturer gave feedback on the proposals, focusing on the narration and the subject of the documentary films which should be discourse-based, historically grounded and aesthetically sensitive language learning that take into account the actual, the imagined and the virtual worlds in which people live
18	Modelling: Taking the symbolic dimension into the documentary film posters	Exploration: Students discussed on the poster design that would represent their films
19	Articulation: Poster design	Coaching: The lecturer helped the students to use canva.com
20	Modelling Topic 4: Multiple Identities in Social Perception and Interaction (Kang and Bodenhausen, 2015)	Exploration: Students discussed issues on multiple identities in social perception
21	Articulation: Opportunities and Challenges of Multiple Identities	Coaching: The lecturer helped the students to identify opportunities and challenges the identity the students represented in particular context
22	Reflection: The Importance of autonomous self-definition and accurate perception by others	Scaffolding: The lecturer helped the students to highlight the issues of social perception on the subject of the films.
23	Quiz on Topic 3 and Topic 4	
24	Modelling: Workshop on	Exploration: Students were

Session	Instructional Activities	Learning Activities
	Documentary Films by a practitioner	introduced: (1) basic camera mechanism, (2) camera movement, and (3) pre-production
25	Modelling: Workshop on Documentary Films by a practitioner	Exploration: Students were introduced documentary Films post-production and editing
26	Articulation: Proposal Revision	Coaching: The lecturer gave feedback to proposal revision especially related to the timeline and activities of production and post-production
27	Articulation: Poster Exhibition, Presentation on Documentary Films and Spoilers	Coaching: The lecturer helped the students with the preparation on Final Presentation, Poster Exhibition and Spoilers of Documentary Films
28	Reflection: Presentation on Documentary Films and Spoilers	Scaffolding: Students presented their project, the lecturer gave them feedback

**Final semester Assignment  
Short Documentary Films uploaded in Youtube**

**Language, Society and Culture**

Updated about 2 months ago · Taken at Universitas Islam Indonesia

Documentary Film- Project Based Learning.

Thank you ms. Anita Dewi, ms. Intan Pradita, Mas Gunawan Iskandar , Pendidikan Bahasa Inggris Uii 2013 , and Mbak Chaya Yuliatrri for a beautiful collaboration



Figure 2. Short Documentary Film Posters

**Methodology**

By using Taylor and Fraser's (1991) Constructivist Learning Environment Survey (CLES), this research involves 31 students taking the coursework in academic year 2015/2016 as respondents. The survey design was arranged in four scales: negotiation, prior knowledge, autonomy, and students-centeredness.

The data is analysed by using descriptive statistics. Means of each items are rated from strongly positive (4-5), positive (3.5-3.9), neutral (3.0-3.4), mildly negative (2.5-2.9), and strongly negative (0-2.4). The data were classified, tabulated, and selected based on Taylor and Fraser's (1991) scales on CLES. The steps of data analysis used Leahey's (2004) steps on using Microsoft Excel for data analysis: (1) creating an Excel database, (2) data-coding, (3) data-retrieving, (4) data-cleaning, and (5) data-analysing

### Research Findings and Discussions

#### Negotiation Scale (Items 1, 5, 9, 13, 17, 21, 25)

As indicated in Figure 3, most students showed positive perception on asking others' ideas, talking sensibly to solve problems, and trying to make sense others' ideas. They remained neutral on the perception of learning teacher's ideas in doing investigation and strongly negative perception on the items that reflect individuality (item 5,9, 25). This result confirms that the learning environment was constructivist because it supports personal and/or collaborative knowledge constructions and problem-solving outcomes. Therefore, in terms of negotiation, it fits Jonassen's (1999) model for constructivist learning environment.

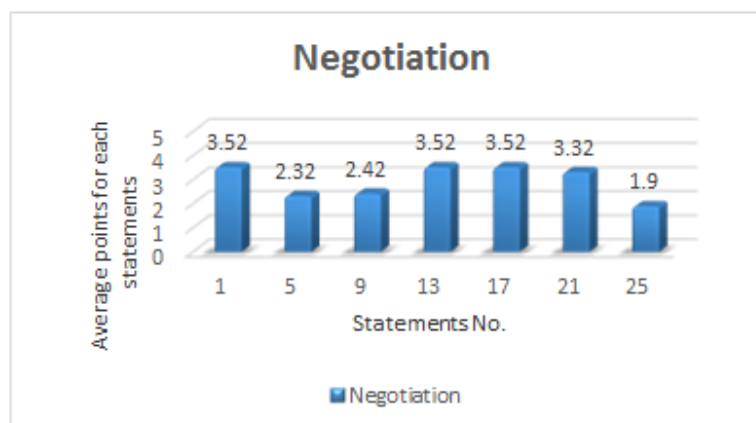


Figure 3. Negotiation Scale

#### Prior Knowledge Scale (Items 2, 6, 10, 14, 18, 22, 26)

As described in Figure 4, students showed positive perception on the way that learning environment makes the students think about real life problems and their interest. However, the students remained neutral on the perception of the role of lecturer to help them to think in the past lessons (item 2) and whether they get to see what I learned in the past still makes sense to them (item 6), which means future design needs to include more scaffolding in connecting today lesson with previous lesson. Their perception was mildly negative on negative statements of the scale (items 10, 22, and 26) which means the course design is confirmed to take advantages on the students' prior knowledge in constructing their original ideas to finish the project. These items also revealed that the students thought that they learned were interesting because it was relevant to their real life.



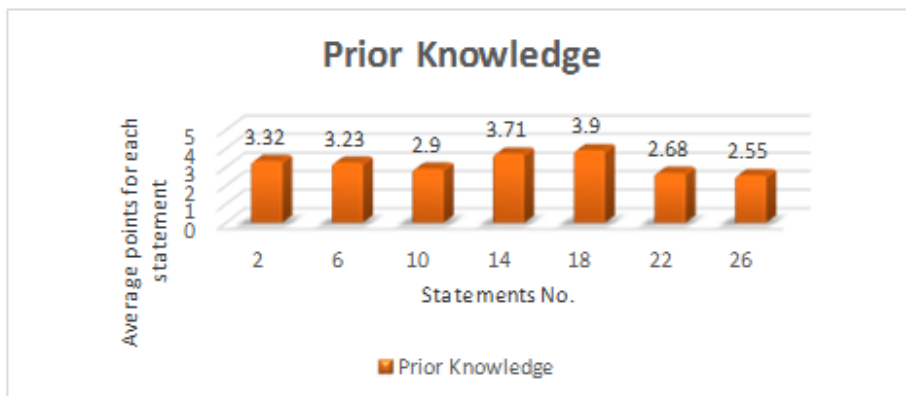


Figure 4. Prior Knowledge Scale

**Autonomy Scale (Items 3, 7, 11, 15, 19, 23, 27)**

As demonstrated in Figure 5, the students perceived positively that they think hard about their own ideas and solutions, decide the time to an activity, and decide if their solution make sense (items 3, 15, 19) and remained neutral on the statements that express autonomy and individuality (items 7,11,23, 27). These findings reveal that students tend to perceive autonomy on the project-based design coursework as a group. They also perceive that they have the autonomy to create their original product, which, in the case of the course design, are their documentary films, film proposals, posters and spoilers.

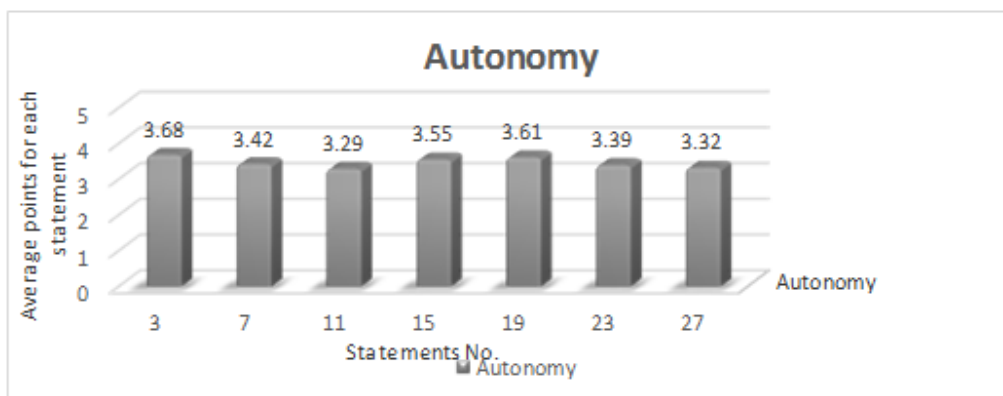


Figure 5. Autonomy Scale

**Students-centeredness Scale (items 12, 16, 20, 24, 28)**

As demonstrated in Figure 6, students perceived positively on the way the teacher expect them to remember important ideas, insist the activities be completed on time, and show them correct method in problem solving and in the way the students learn teacher’s method in doing investigation (items 8,16, 20, 24, 28). They perceived neutral on the teacher’s/ lecturer’s role in giving problems (item 4) and setting activities (item 12). From the findings, it is revealed that the teacher/ lecturer gave the students supporting learning in CLE (Jonassen, 1999) by modelling, coaching and scaffolding.

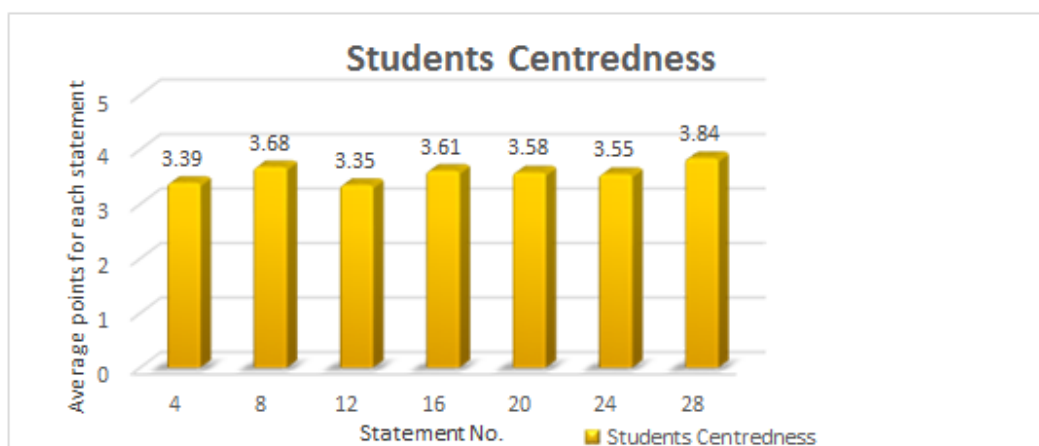


Figure 6. Students-centeredness Scale

### Conclusion

The use of CLES allows the lecturer who designs the course to investigate constructivist teaching/learning approaches in the course design. The findings mostly reveal positive perception on the four scales of CLES, which confirms that the design is proved to implement what Jonassen's (1999) proposes as The Model of Designing CLE and Jonassen's (1999) elaboration on supporting learning in CLE. In negotiation scale, the results are positive for asking others' ideas, talking sensibly to solve problems, and trying to make sense others' ideas. In prior knowledge, the results are positive in the way that learning environment makes the students think about real life problems and their interest. In autonomy, the students perceive that they think hard about their own ideas and solutions, decide the time to an activity, and decide if their solution make sense. Finally, in student centeredness, the results are positive in the way the teacher expect them to remember important ideas, insist the activities be completed on time, and show them correct method in problem solving and in the way the students learn teacher's method in doing investigation.

The research, however, does not compare the findings with the findings of other research which use the same instrument (CLES) in the field of language education. This is due to the extensive use of CLES in various field but rarely in language education field especially in relation with the course design. Therefore, these research findings can be used to as a case describe how the course designed based on the model of CLE and supporting learning in CLE (Jonassen, 1999) can be evaluated by the instrument of CLES (Taylor and Fraser, 1991).

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## Appendix

### Taylor And Fraser's (1991) Classroom Environment Study Student Questionnaire Perceived Form

#### DIRECTIONS

1. This questionnaire asks you to describe this classroom which you are in right now. There are no right or wrong answers. This is not a test. Your opinion is what is wanted.
2. Do not write your name. Your answers are confidential and anonymous.
3. On the next few pages you will find 28 sentences. For each sentence, circle one number corresponding to your answer.

For example:

	Very Often	Often	Some-times	Seldom	Never
In this class.....					
The teacher asks me questions	5	4	3	2	1

- If you think this teacher very often asks you questions, circle the 5.

- If you think this teacher never asks you questions, circle the 1.
  - Or you can choose the number 2, 3, or 4 if this seems like a more accurate answer.
4. If you want to change your answer, cross it out and circle a new number.
5. Now turn the page and please give an answer for every question.

No	In this class.....	Very Often	Often	Some-times	Seldom	Never
1	I ask other students about their ideas.	5	4	3	2	1
2	The teacher helps me to think about what I learned in past lessons.	5	4	3	2	1
3	I think hard about my own ideas	5	4	3	2	1
4	The teacher gives me problems to investigate	5	4	3	2	1
5	I don't ask other students about their ideas	5	4	3	2	1
6	I get to see if what I learned in the past still makes sense to me	5	4	3	2	1
7	I do investigations in my own way	5	4	3	2	1
8	The teacher expects me to remember important ideas I learned in the past	5	4	3	2	1
9	I'm not aware of other students' ideas	5	4	3	2	1
10	There's not enough time to really think	5	4	3	2	1
11	I try to find my own way of doing investigations	5	4	3	2	1
12	The activities I do are set by the teacher	5	4	3	2	1
13	I talk with other students about the most sensible way of solving a problem	5	4	3	2	1
14	I get to think about interesting, real-life problems	5	4	3	2	1
15	I decide how much time to spend on an activity	5	4	3	2	1
16	The teacher expects me to remember things I learned in past lessons	5	4	3	2	1
17	I try to make sense of other students' ideas.	5	4	3	2	1
18	I learn about things that interest me	5	4	3	2	1
19	I decide if my solutions make sense	5	4	3	2	1
20	I learn the teacher's method for doing investigations	5	4	3	2	1
21	I pay close attention to other students' ideas	5	4	3	2	1
22	What I learn has nothing to do with real life	5	4	3	2	1
23	I decide if my ideas are sensible	5	4	3	2	1
24	The teacher insists that my activities be completed on time	5	4	3	2	1
25	I don't pay attention to other students' ideas	5	4	3	2	1
26	The things I learn about are not really interesting	5	4	3	2	1
27	I decide how much time I spend on an activity	5	4	3	2	1
28	The teacher shows the correct method for solving problems	5	4	3	2	1