Background

This resource pack is published to support schools’ implementation of the Economics Curriculum (Secondary 4-6) in September, 2009. The topic of “Efficiency, Equity and Role of Government” in the Curriculum involves new contents such as income inequality and the related policy concerns. To provide teachers with references to the concepts, real cases involved in this topic as well as teaching materials, the Curriculum Development Institute of the Education Bureau invited the Hong Kong Cooperative Learning Association to develop this pack.

This resource pack was also uploaded to the website of the Education Bureau (http://www.edb.gov.hk) for teachers’ reference. If you have any comments and suggestions on this resource pack, please send them to:

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1. This learning and teaching resource pack is jointly designed by local academics, educationalists and frontline teachers. It has the following features:

a. Materials related to different stakeholders are included to prompt students to consider issues from different perspectives.

b. Appealing real cases and interactive learning activities are provided to facilitate discussions and critical thinking.

c. Simplified cases and materials are set out for easy learning by the average local senior students.

d. A design aims to nurture the readiness and confidence of students so that they could get the most out of the learning process.

e. Well-balanced materials and learning activities covering the major concepts are designed to engender a comprehensive understanding.

f. Multi-level materials and learning activities catering for students with different needs and abilities are provided to offer flexibility to the teacher.

2. The Pack may not cover every learning point, but it covers all important concepts and supports the major part of the teaching programme. While the Economics Curriculum and Assessment Guide (Secondary 4-6) suggests 18 hours on this topic, the Pack provides activities for 13-15 hours.

3. Each unit includes learning activities, assignments and learning assessment. Certain learning activities in some units (e.g. units 1, 4 and 6) can be used as assignments or assessment. Certain learning activities, assignments and assessment are designed for more able students (indications are added). The teacher is free to decide according to the needs and abilities of students.
4. The themes and the corresponding number of activities of the learning materials are as follows:

<table>
<thead>
<tr>
<th>Unit</th>
<th>Learning theme</th>
<th>No. of activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Efficiency and equity in a market economy</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Measuring income inequality</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>Factors affecting income inequality</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Equalising income or equalising opportunities</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Disincentive effects of taxes and transfers</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>Trade-off between efficiency and equity</td>
<td>4</td>
</tr>
</tbody>
</table>

5. Each unit is made up of the overall objectives, time allocation, individual topic or learning activity (with specified objectives), prerequisite knowledge, time required, materials needed, teaching plan and instructional procedures, alternative activities, teaching materials, learning materials, assignments, assessment and teacher’s reference.

6. The Pack picks up current or the most updated materials and data (e.g. data and information from the 2006 by-census report) by the time it is written. But the materials would be used after 2009, so the teacher should update the information and data (like referring to the 2011 census report) and keep track of the changes of Government policies and measures from time to time. The websites of the sources of information are listed for the teacher to update the information and data when necessary.

7. Some materials or data are not included in the Pack due to the copyright concern (e.g. the song of Streets of London in Unit 1). Sources from websites are listed for the teacher to obtain or download the necessary information in preparing the learning materials.

8. Three Excel Programmes are designed for the teacher to generate Lorenz Curves and the trends of the percentages of total income earned by different income groups. They were uploaded to the website of the Education Bureau (EDB):
9. Reading materials and worksheets of the Pack for students were uploaded to the website of the Education Bureau (EDB).

10. The Pack offers a variety of interactive activities to students in pairs or groups of four. These activities include pair sharing, group discussion, mini-role play and mini-debate, all guided by the working principles of co-operative learning. These activities can be efficiently used for data response, news analysis and case study. Three guidelines on arranging and conducting a small group discussion, a mini-debate and a mini-role play are included for the teacher’s reference.

11. Apart from content knowledge and skills, students’ generic skills (e.g. critical thinking, communication and problem-solving, etc.) will also be trained through the interactive activities employed in the pack.

12. Real cases are used in the Pack to arouse students’ interest. Teacher should remind students that there are many variables changing in the reality that lead to its complication. Students can focus on the key ideas of the topic during discussion but flexibility in answers is allowed.

13. The Pack also provides some possible answers for most of the discussion questions, assignments and assessment. Those answers serve merely as guidelines or directions for the teacher’s reference and are not meant to be exhaustive nor conclusive. Teacher is therefore encouraged to come up with his or her own answers.

14. The EDB and the Hong Kong Cooperative Learning Association own the copyright of the materials and learning activities included in the Pack. Nobody can use them for any other purposes, except for classroom teaching in Hong Kong.
Unit 1: Efficiency and Equity in a Market Economy

Objectives:

Students will be able to
1. understand the existence of income inequality in a developed market economy;
2. consider the role of government in reducing income inequality;
3. understand that income equality would be a concern of the Hong Kong society and the HKSAR Government;
4. understand and identify income inequality and related ideas from local news;
5. understand the impacts of income inequality on the society and the people;
6. review critically the impacts of income inequality on different stakeholders;
7. review critically the effects of public medical policy of the HKSAR Government on efficiency and post-tax post-social transfer distribution of income;
8. review the rental of public housing in Hong Kong in regard to efficiency;
9. explore the impacts of uneven income distribution (in Macau) on different stakeholders.

(Apart from the above aims, the activities of this Unit also try to develop students’ skills in interpreting the underlying economic messages of mass media such as songs and pictures.)

Time allocation:

160-170 minutes

Learning activities:

Five learning activities
Activity 1: The Issue of Equity in a Market Economy
Study pictures of the poor and the rich and read the lyrics of a song

A. Objectives:
• To observe and examine income inequality in a developed market economy.
• After the lesson, students will gain a perspective on:
  1. the issue of economic equity;
  2. the role of government in achieving equity;
  3. the underlying message of economic equity of pictures and the song.

B. Time required: 25 minutes

C. Prerequisite knowledge: No

D. Materials needed: Some pictures of the poor and the rich, the song and lyrics of *Streets of London*, and a set of discussion questions (Teaching materials)

E. Teaching plan and instructional procedures:

<table>
<thead>
<tr>
<th>Teacher Activities</th>
<th>Student Activities</th>
<th>Time (mins)</th>
<th>Target Content/ Skills</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Show pictures of the poor and the rich*;</td>
<td>Study the pictures; Share personal feelings.</td>
<td>4</td>
<td>Look into equity in an economy.</td>
<td></td>
</tr>
<tr>
<td><strong>Ask:</strong> “How do you feel about the people in the pictures? Why?”</td>
<td></td>
<td></td>
<td>*Teacher may download pictures from internet or use the pictures in the Appendix on P.4.</td>
<td></td>
</tr>
<tr>
<td>2. Play and show lyrics of <em>Streets of London</em>;</td>
<td>Listen to the song and read the lyrics; Share views. (3 mins for sharing)</td>
<td>7</td>
<td>Think about income inequality in a developed market economy; Relate economic equity to income distribution and consider the role of government in achieving equity.</td>
<td></td>
</tr>
<tr>
<td>Briefly go over the discussion questions.</td>
<td></td>
<td></td>
<td>*1-3 mins for sharing among students will be enough. \ Ralph McTell, Streets of London.</td>
<td></td>
</tr>
<tr>
<td>3. Randomly select a student from every two or three pairs to report on their views.</td>
<td>Listen and jot down relevant points.</td>
<td>5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. Comment on students’ views and introduce different views on equity. **

Listen and jot down relevant points.

9

** Remarks: There are different interpretations of equity, income equality as the focus of this activity is only one of the interpretations.

F. Teaching Materials:

Questions for discussion after listening to the song and reading the lyrics

Q1: What kind of economic system is Britain?
   It is a market economy.

Q2: What is your impression of the living standard of the people in London?
   Apart from loneliness, some members in the community also suffer from economic inequality.

Q3: Do you find similar economic phenomenon elsewhere such as Hong Kong?
   Students may give their own answers based on their observation. There are a lot of low-income people in Hong Kong living in districts like Shamshuipo and Tin Shui Wai.

Q4: What do you think about the responses of different members of an economy to such economic phenomenon?
   The response of the poor, the rich, the government, the legislators, the academic and the businessmen may be different. But in general they consider a severe inequality undesirable and a greater equity is more desirable.

Q5: Do you think the Government should take action to change this phenomenon? Why?
   Students may give different reasons. The key is “why” rather than “yes” or “no”.

Remarks:
Other questions which suit the interest, needs and abilities of students may be included.
G. Appendix: Pictures of the poor and the rich
H. Teacher’s Reference:


4. Ralph McTell, Streets of London,
   - song of *Streets of London*: http://www.youtube.com/watch?v=VmKMQ19bZ8

5. Stephanie Wong, Hong Kong’s “cage homes” reveal wealth gap. (http://news.sawf.org/Lifestyle/39233.aspx) for pictures of poor people living in “cage homes” in Hong Kong
Activity 2: Group discussion on news reports on income distribution in Hong Kong

A. Objectives:

- To look into the issue of income inequality and the action the government could and should take.
- After the lesson, students will gain an understanding of:
  1. the change of income distribution reported in local news;
  2. income distribution as a major social concern and a cause for social unrest;
  3. the duty of the Government in improving income distribution.

B. Time required: 35 minutes

C. Prerequisite knowledge:

1. Different interpretations of equity.
2. An understanding of equity as reflected by distribution of income.

D. Materials needed: A set of discussion questions (Teaching materials) and two news reports (Learning materials adopted from Ming Pao, 13 April 2007 and 9 July 2007)

E. Teaching plan and instructional procedures:

<table>
<thead>
<tr>
<th>Teacher Activities</th>
<th>Student Activities</th>
<th>Time (mins)</th>
<th>Target Content/Skills</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Form groups of four, each with two pairs of A and B.*</td>
<td>Form pairs, then form groups.</td>
<td>3</td>
<td></td>
<td>• Two articles from Ming Pao.</td>
</tr>
<tr>
<td>2. Go over the objectives and the discussion questions.</td>
<td>Listen to instructions.</td>
<td>5</td>
<td>Identify the issue of income distribution in local news report.</td>
<td>• *If there is odd number of students, form trios and a few groups of three to six members. But the majority shall be groups of four.</td>
</tr>
<tr>
<td>3. Assign reading to each pair (Pair A article 1; Pair B article 2).</td>
<td>Each pair find the main themes of the assigned article.</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Lead and encourage students to answer the discussion questions.</td>
<td>Answer the questions and come to conclusion.</td>
<td>5</td>
<td>Understand that income distribution is a social concern in a market economy that the government</td>
<td></td>
</tr>
</tbody>
</table>
5. Randomly select one representative from a few groups to present group views.  
6. Comment on the presentations.  

5. Listen and respond to presentation. 
6. Reflect on teacher’s comments.

F. Teaching materials
Newspaper articles for reading

**Article 1**

**Rich family and poor family on the rise**

The Legislative Council Panel on Financial Affairs yesterday discussed the results of the 2006 Population By-census. In the past ten years, households with monthly income less than $8,000 had increased from 16.4% in 1996 to 21.2% in 2006. Households with monthly income of $40,000 or more had also increased from 15% to 17% for the same period.

Several members were concerned that there was in Hong Kong a huge gap between the rich and the poor, and Hong Kong might become an M-shape society (middle-class persons decreasing while low-income and highest-income persons increasing). They wondered why the Government so far had not published the latest 2006 Gini Coefficient of Hong Kong.

Source: Adopted from 13 April 2007, Ming Pao
Civic groups most satisfied with relationship between SAR and Central Government

Synergynet appointed the Hong Kong Council of Social Service and the Policy 21 Ltd of the University of Hong Kong to conduct a survey of 703 civic community groups, to find out their views on the administrative performance of the Government in the last ten years since the return of Hong Kong.

The results were showed in the chart below. The handling of ‘relationship between the SAR and the Central Government’ scored the highest. On top of the dissatisfaction scores were ‘environmental protection’, ‘democratic political development’ and ‘distribution of social resources’.

Synergynet sees the above indicators as reflecting the opinion of the groups interviewed. It means that ‘economic growth’ adopted by the Government as the fundamental policy for development could not benefit all social classes and might not achieve social harmony with improved economic factors. Synergynet urges the Government to give first priority to such problems in the next five years.

<table>
<thead>
<tr>
<th>Item</th>
<th>Satisfied (%)</th>
<th>Dissatisfied (%)</th>
<th>No Comment (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAR and Central Gov’t Relationship</td>
<td>88</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Rule of Law</td>
<td>84</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>Economic Growth</td>
<td>79</td>
<td>19</td>
<td>2</td>
</tr>
<tr>
<td>Distribution of Social Resources</td>
<td>59</td>
<td>40</td>
<td>2</td>
</tr>
<tr>
<td>Democratic Political Development</td>
<td>57</td>
<td>40</td>
<td>3</td>
</tr>
<tr>
<td>Environmental Protection</td>
<td>56</td>
<td>44</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Adopted from Ming Pao, 9 July 2007
Discussion questions: (Q1-2 for Pair A, Q3-4 for Pair B)

Q1: How did income distribution in Hong Kong change as reported in the news? What is the evidence?

The income distribution has become worse/more uneven as the percentages of households of both the lower-income group and higher-income group have increased.

Q2: Why economic growth does not improve the income distribution?

Economic growth means an increase of the GDP, but it does not necessarily guarantee that the increase in income is evenly distributed.

Q3: What would be the social consequences and hence the cost to society of a worsening income inequality? Why?

There would be a number of social consequences, such as a greater social discontent, a lack of harmony and a drop of sense of belonging. These may further lead to social unrest if the issue is left unaddressed and gets snowballing. Evidently, the rich and the poor often have conflicting interests.

Q4: Who is expected to improve income distribution? What is the rationale behind such a claim?

Tackling poverty and promoting even income distribution require appropriate fiscal policy and legislation. The huge financial commitment and the power to carry out legislation are beyond any individual member. Since the Government is set up in the first place to deal with social issues, including income distribution, she is therefore expected to improve income distribution.
Activity 3: Mini-role play: Consequences of income inequality

A. Objectives:
- To look into the consequences of income inequality on society in general.
- After the activity, students will be able to gain:
  1. an understanding of the impacts of income inequality on different stakeholders;
  2. a critical thinking about the consequences of income inequality on different stakeholders.

B. Time required: 35 minutes

C. Prerequisite knowledge: Meaning of equity in terms of income distribution

D. Materials needed: A set of discussion questions and two news articles (adopted from Ming Pao, 2 May and 17 October 2007)

E. Teaching plan and instructional procedures:

<table>
<thead>
<tr>
<th>Teacher Activities</th>
<th>Student Activities</th>
<th>Time (mins)</th>
<th>Target Content/ Skills</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Form pairs, then groups of four.</td>
<td>Form pairs, then groups.</td>
<td>2</td>
<td>Find out the consequences of income inequality from local news reports.</td>
<td>Two articles from Ming Pao on 2 May and 17 October 2007.</td>
</tr>
<tr>
<td>2. Go over the objectives and the discussion questions.</td>
<td>Listen to instructions.</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Assign reading to each pair (Pair A article 1, Pair B article 2).</td>
<td>Each pair read one article and find out the main themes.</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Supervise students and encourage them to share views.</td>
<td>Each pair briefly report on the consequences of income inequality.</td>
<td>5</td>
<td>Summarise the consequences of income inequality based on local news reports.</td>
<td></td>
</tr>
<tr>
<td>5. Assign roles (Government official, legislator, poor workers, family members of poor workers) to group members. The context will be a market economy in general.</td>
<td>Students determine the consequences (one to two points) borne by the assigned roles.</td>
<td>3</td>
<td>Look into the consequences of income inequality on different stakeholders.</td>
<td>2 minutes for each role to share and follow up.</td>
</tr>
</tbody>
</table>
6. Supervise the mini-role play.

| Each role talks about the consequences on him/her and the possible action that he/she may take to maximise his/her interests. Others to challenge or respond. |
| 10 | Review critically the consequences on different stakeholders. |
| For more detailed working steps, refer to guidelines on mini-role play. |

7. Collect feedback, comment on the consequences and action taken by different stakeholders, and highlight some possible costs to society due to these consequences and actions.

| Hand in a brief report on the consequences on different stakeholders agreed by the group. |
| 5 | Understand the consequences of income inequality on different stakeholders. |
| Could be a home assignment. |
F. Teaching materials:

**Article 1**

Case of Macau

The largest demonstration, in seven years since the handover, broke out in Macau yesterday on the 1 May Labour Day, despite the ongoing upturn of the economy. The police made several warning shots skywards, but that only caused a greater chaos.

The large scale confrontation between the demonstrators and the police points to conflicts at deeper levels. The economy in Macau has been blooming in the past seven years and revenue for the last year from the casino business surpassed that of the Las Vegas, becoming the world’s number one. The GDP per capita increased to US$28,436, higher than Hong Kong’s US$27,641. Yet, behind the prosperity in Macau, the problem of the widening gap between the haves and the have-nots gets worse and worse.

According to some statistics, a considerable number of families in the more densely populated districts are living on monthly income below the median figure of MOP**7,300. At present, some 20% of the Macau population is living in leased properties and the pressure of rocketing rent on them is compounded. All such issues, plus news of corruption cases by senior civil servants from time to time, are adding fuel to the fire of grumble among the crowd of the lower class. And so, Macau is now facing ‘three losses’ – loss of balance of social development, leading to loss of orderliness of social mobility and finally leading to loss of control over law and order. The administration must be mindful of all these developments.

It is not good enough to rely on the popularity of the Chief Executive and the buoyant economy in the HK and Macau SAR where capitalistic system is implemented. If the Governments of the two places do not come up with a proper solution for the deep-down problems, they would face an explosive situation at any time.

** MOP is the unit of currency in Macau

Source: Adopted from 2 May 2007, Ming Pao
Article 2

Survey: 10,000 poverty children poor in body and mind (Hong Kong)

The Boy’s & Girl’s Club Association (BGCA) of Hong Kong recently interviewed over 400 children of poverty. They found that 75% of them could not attend extra-curricular activities for financial reasons, 40% lacking self-confidence and 15% were underweight. In addition, over a half of the parents of these poor children said that they were ‘not able to help their children with their homework and study’. Hence, these children were not doing as well as others. 43% of the parents admitted that they did not have parenting skills and had given physical punishment or heavy scolding to their children.

The survey also discovered that 10% of the children interviewed are living in deficiency in terms of financial support, study support, parent-children bonding, and social and emotional development. Wong Kwai Yau, chief supervisor of the BGCA, expressed that as there were currently 110,000 children receiving Comprehensive Social Security Assistance, some 10,000 children in Hong Kong fell under ‘multiple-deficiency’ (i.e. not having enough support in many ways).

Source: Adopted from 17 October 2007, Ming Pao
Discussion Questions

Article 1: for Pair A

Q.1 What are the consequences of income inequality on society and Government? Why?

The relationship between the members of society tenses up and even gets into conflict, resulting in a less harmonious society. The Government needs to spend more resources on helping the poor and mending a divided society, otherwise it may lose the trust and support of the people.

Article 2: for Pair B

Q.2 What are the consequences of income inequality on the poor and the families of the poor? Why?

As the poor has far less to make ends meet, the health, development and education of their children suffer. So are their self-respect and self-image. All these issues are related as poor health leads to poor study, which leads to poor development, and which in turn leads to low-pay job. Once a vicious circle gets started, the ill effects would most likely go down the generations, unless some good measures are put in place to help the poor.
Activity 4: Mini-Debate:
“Hong Kong SAR Government should increase the fees for emergency medical services in public hospitals”

A. Objectives:
• To critically review the effects of the Government policy on medical charges in relation to efficiency and post-tax post-social transfer distribution of income.
• After the activity, students will be able to gain:
  1. an understanding of the effects of the Government policy on efficiency and post-tax post-social transfer income distribution;
  2. a critical thinking about the effects of the Government policy on efficiency and post-tax post-social transfer income distribution.

B. Time required: 35 minutes

C. Prerequisite knowledge:
1. Meaning of efficiency and income distribution.

D. Materials needed: The information sheet on the background of Fees for Accident and Emergency Services in Public Hospitals.
E. Teaching plan and instructional procedures:

<table>
<thead>
<tr>
<th>Teacher Activities</th>
<th>Student Activities</th>
<th>Time (mins)</th>
<th>Target Content/ Skills</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| 1. Form pairs, then form groups of four.                                           | Form pairs, then groups.                        | 2           | Find out and critically review the effects of government policies on the efficient use of scarce resources and income distribution. | • Reference: *

  * Reports from Ming Pao on 14 June 2007.  
  * Press Release of Food and Health Bureau, 5 November 2002.  

  • 2 mins for one presentation in the debate.  
  • The debate can be optional.  
  • This is a short version of mini-debate.                                                                                                                                 |
| 2. Go over the objectives and procedures of the mini-debate (refer to the guidelines on mini-debate). | Listen to instructions.                         | 5           |                                                                                        |                                                                                                                                 |
| 3. Assign the question to each pair. (Pair A Q1, Pair B Q 2)                        | Each pair read the article and discuss answers to the question. | 6           |                                                                                        |                                                                                                                                 |
| 4. Supervise the preparation of debate.                                             | Each pair formulate points for the debate.      | 5           |                                                                                        |                                                                                                                                 |
| 5. Oversee the debate.                                                              | Students debate within the group.               | 12          |                                                                                        |                                                                                                                                 |
| 6. Collect feedback and comment on the increase of the fees.                        | Hand in a brief report on the effects of fees increase for emergency services on efficiency and equity. | 5           |                                                                                        |                                                                                                                                 |

F. Alternative activity: This activity may be adopted for group discussion or mini-role play.
G. Teaching materials:

**Fees for Accident and Emergency Services in Public Hospitals**

In 2000, the unit cost of emergency medical services at the casualty wards of public hospitals was about HK$470. But the services recipients did not need to pay any fees. Patients needed to wait for about two to three hours for the services.

In 2001-02, the Hong Kong Hospital Authority (HKHA) found that there were 2.5 million patients receiving emergency medical services in public hospitals. The semi-urgent or non-urgent cases accounted for about 75%.

Starting from November 2002, HKHA charged HK$100 for emergency medical services provided in public hospitals. Patients with financial difficulties may apply for a fee waiver.

In 2006-07, out of the about two million recipients of emergency medical services, 1.34 million (68%) were semi-urgent or non-urgent cases. The average waiting time of non-urgent cases ranged from 70 minutes to 98 minutes. Those non-urgent cases in the New Territories West would wait from 100 minutes to 102 minutes.

Sources:
Discussion Questions:

Q.1 (Pair A)
Explain how the charge of $100 for emergency medical services affects the efficiency of using emergency medical services in public hospitals.

a. Given the casualty wards are at full capacity, people using emergency medical services will prolong the waiting time of the others and hence induce an external cost. Imposition of a service charge of $100 will result in an internalisation of part of the external cost, and may enhance the efficiency. The total number of cases may decrease and the government (Hong Kong Hospital Authority) may allocate some scarce resources to provide services which are of higher value to society.

b. The waiting time which can be used for productive activities may be shortened. Moreover, the services to the patients would be better.

To conclude, as the total social costs are reduced, but emergency cases receive better services, the efficiency is improved.

Q.2 (Pair B)
Explain how the charge of $100 for emergency medical services affects the post-tax post-social transfer income distribution of the patients receiving emergency medical services in public hospital.

a. Some poor emergency patients need to pay the charge if they are not qualified for the fee waiver.

b. Some poor non-emergency patients may visit private medical practitioners for consultation. Therefore, more poor patients need to pay more for medical services, resulting in a more unequal post-tax post-social transfer income distribution.

Or: The effect on the post-tax post-social transfer income distribution is uncertain because of the following reasons:

a. More rich patients visit private medical practitioners, so they pay more for emergency medical services.

b. But more poor emergency patients visiting public hospitals need to pay the charge if their financial situations are not too difficult. Therefore, some of the rich and poor patients pay more for medical services and the effect on the income distribution is not certain.
Activity 5: Rents of public housing and private housing in Hong Kong

A. Objectives:
   • To review the rents of public housing in Hong Kong in relation to efficiency.
   • After the activity, students will be able to explain:
     1. why the rent of public housing is set inefficiently;
     2. why the Housing Authority would charge public housing inefficiently.

B. Time required: 30 to 40 minutes (depending on the type of activities)

C. Prerequisite knowledge: Meaning of efficiency and consequences of income inequality

D. Materials needed: One information sheet on rental of public housing in Hong Kong and guiding questions

E. Teaching plan and instructional procedures:
   Refer to the guidelines on small group discussion or mini-debate for detailed steps. The debate topic could be:
   “The Housing Authority charging public flats efficiently will benefit the Hong Kong society.”

F. Alternative activity:
   This activity could be a small group discussion or home assignment.
Rentals of private and public housing in Hong Kong:

1. The rent of a private housing estate is based on the following:
   a. The location.
   b. Public facilities provided in the estate.
   c. Location of the flat in the building (including orientation and view).
   d. Size of and household facilities provided in the flat.
   e. The change of rent in accordance with the contract between the owner and the tenant.

2. The rent of a flat of a public housing estate owned by the Housing Authority (HA) has the following features:
   a. The rent depends on the size of the flat, location, age and type of the housing estate.
   b. The very low-income families receiving Comprehensive Social Security Assistance do not need to pay the rent. (The Welfare Department pays the rent for them.)
   c. Tenants in temporary financial hardship can apply for rent assistance under the Rent Assistance Scheme. The successful applicants only have to pay 50% of the rent for a maximum of six months.
   d. Tenants with high income/asset value need to pay double rent or even market rent.
   e. The average waiting time for an eligible application is about two years. The HA may review the rent every two years. The maximum increment is 10% of the existing rent.
Discussion Questions:

Q1. Do you think the rent is more efficiently charged for private flats than that for the public flats? Explain your answer.

Some possible reasons that make the rent charged for private flats more efficient than that for public flats:

a. The rent of a private flat is determined by the market demand and supply and fully reflects the quality of the flat. Hence, the flat is used by the user who is willing to pay the highest rent.

b. If the existing tenant is not willing to pay the highest rent, he/she has to move out once the contract expires.

c. The rent of a public flat is not set fully according to its quality. The rent may be the same for flats of different quality or for different demand. The public flat is therefore not used by user who could afford and is willing to pay the highest rent.

d. The change of rent for public flat would not be affected by the demand of the potential tenants, so the use of the flat would not be transferred to another tenant who is willing to pay a higher rent.

Q2. Given that providing public housing is a means of evening post-tax post-social transfer income distribution, if you were the Chairperson of HA, what would you consider in setting the rent of public flats? (It is an optional question and may be left for group work.)

Some possible reasons that make the HA not to charge the public flat efficiently:

a. The aim of providing public flats is to subsidise housing of low-income families who are unable to afford private accommodation, so that they could have reasonable living conditions.

b. A highly uneven income distribution may cause social upheavals which are costly to society.

c. The rent policy has to be approved by the Legislative Council which may not consider market forces nor efficiency. The Councilors may concern the interests of the people who vote for them more.

d. The transaction cost (e.g. information cost and administrative cost) of charging efficiently would be very high for a complex organisation like HA, so it would be more “efficient” for the HA to charge rent in this way.
H. Assignment:

Study the information sheet and answer the questions:

New medical fees and charges of Specialist Outpatient (SOP) Clinics

Starting from 1 April 2003, the Hong Kong Government has increased the fees and charges of Specialist Outpatient (SOP) clinics as follows:

<table>
<thead>
<tr>
<th>Items</th>
<th>Before 1 April (HK$)</th>
<th>After 1 April (HK$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fees for the first consultation</td>
<td>44</td>
<td>100</td>
</tr>
<tr>
<td>Fees for the subsequent consultation</td>
<td>44</td>
<td>60</td>
</tr>
<tr>
<td>Charges for medicine</td>
<td>0</td>
<td>10 per item</td>
</tr>
</tbody>
</table>

Questions:

Q1. What will be the effect of the new charges on the efficient use of medical facilities and medicine?

Refer to the suggested answer for Activity 4.

Q2. What will be the effect of the new charges on income distribution?

Refer to the suggested answer for Activity 4.
Unit 2: Measuring income inequality

Objectives:

Students will be able to

1. understand the limitations of using income distribution of households to indicate the gap between the rich and the poor;
2. understand that income inequality can be measured by different measurements:
   a. the shares/percentages of the total income earned by the lowest income group and the highest income group;
   b. Lorenz Curve;
   c. Gini Coefficient;
3. interpret the meanings of different measurements;
4. know that income inequality level of Hong Kong can be reflected through different measurements;
5. explain the major limitations/disadvantages of different measurements; (for more able students)
6. know how to map information from graphs and interpret the meaning of numeric data.

Time allocation:

155-185 minutes
Objectives:

After the lessons, students will

1. understand how the income inequality is represented by the percentages of total income earned by the highest-income group and the lowest-income group;
2. understand the data and graphic representation of the changes of the percentages of total income earned by different income groups;
3. be able to explain the limitations of this measure (for more able students).

Prerequisite Knowledge:

1. Meaning of income.
2. The ability to read a graph.

Time required:

55-70 minutes

Learning activities:

Three learning activities
2.1 Percentages of total income earned

Activity 1

A. Objective: To understand the limitations of using the annual income of households to represent the gap between the rich and the poor.

B. Time required: 20 minutes

C. Materials needed: Mind map on indicators and a worksheet

D. Teaching plan and instructional procedures:

<table>
<thead>
<tr>
<th>Teacher Activities</th>
<th>Student Activities</th>
<th>Time (mins)</th>
<th>Target Content/ Skills</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Show pictures of the poor and the rich and ask students to brainstorm on the indicators of “the gap between the rich and the poor”. (TM1)</td>
<td>Brainstorm with a partner on the indicators of the gap between the rich and the poor.</td>
<td>4</td>
<td>Consider the indicators of the gap between the rich and the poor from different perspectives.</td>
<td>• Download pictures of the poor and the rich from the Internet. • TM1</td>
</tr>
<tr>
<td>2. Ask randomly one to two students about their answers and clarify if necessary.</td>
<td>Listen and jot down notes.</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Ask students to rank four cases from the richest to the poorest. (TM2)</td>
<td>Discuss with a partner and rank the four cases with reasons.</td>
<td>5</td>
<td>Identify the difference between using income and wealth in measuring the gap.</td>
<td>TM2</td>
</tr>
<tr>
<td>4. Ask randomly one to two students to report and explain their answers.</td>
<td>Listen and jot down notes.</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Explain the difficulties of using wealth and the limitations of using annual income to indicate the gap.</td>
<td>Listen and jot down notes.</td>
<td>5</td>
<td>Understand the limitations of using annual income to indicate the gap.</td>
<td></td>
</tr>
</tbody>
</table>
E. Teaching Materials

Teaching Material 1 (TM1)

The indicators of the gap between the rich and the poor
Discuss with a partner and rank the following households from the richest to the poorest. State the reasons.

**Household A:**
A couple with two children.
Total wealth (deposits): 500,000 units,
Annual income (salaries plus interest from deposits): 480,000 units.

**Household B:**
A retired couple with no child.
Total wealth (deposits): 5,000,000 units,
Annual income (interest from deposits): 250,000 units.

**Household C:**
A young worker living alone.
Total wealth (deposits): 10,000 units,
Annual income (salaries plus interest from deposits): 360,000 units.

**Household D:**
A young couple with one child.
Total wealth (deposits): 100,000 units,
Annual income (salaries plus interest from deposits): 300,000 units.

---

**The ranking of household from the richest to the poorest**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Household</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1st)</td>
<td>The richest</td>
<td></td>
</tr>
<tr>
<td>(2nd)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3rd)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4th)</td>
<td>The poorest</td>
<td></td>
</tr>
</tbody>
</table>
2.1 Percentages of total income earned

Activity 2

A Objective: To understand the use of the highest-income and the lowest-income groups to indicate the income inequality and its limitations.

B. Time required: 35 minutes

C. Materials needed: Three sets of teaching materials (TM1-3)

D. Teaching plan and instructional procedures:

<table>
<thead>
<tr>
<th>Teacher Activities</th>
<th>Student Activities</th>
<th>Time (mins)</th>
<th>Target Content/ Skills</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Show an exhibit of income distribution of the US and Hong Kong. Ask students to guess the percentages of total income earned by the highest-income and the lowest-income groups. (TM1)</td>
<td>Discuss with a partner the percentages of total income earned by the highest-income and the lowest-income groups in the US and Hong Kong.</td>
<td>4</td>
<td>Have an idea of the difference between the highest-income and the lowest-income group in the US and Hong Kong.</td>
<td>Teachers may use different images for the content of the exhibit. TM1</td>
</tr>
<tr>
<td>2. Invite randomly one to two students to share their answers. Compare the situation of the US and that of Hong Kong.</td>
<td>Understand and compare the percentages of total income earned by the highest-income and the lowest-income groups in the US and Hong Kong.</td>
<td>3</td>
<td>Understand the income inequality of Hong Kong.</td>
<td>The data in 2007 for the US, and 2006 for Hong Kong.</td>
</tr>
<tr>
<td>3. Explain that income groups can be divided into five groups with each containing one fifth (quintile or 20%) of the total population and relate income inequality to the percentages of total income earned by different income groups.</td>
<td>Finish Assignment 1.</td>
<td>5</td>
<td>Determine the percentage of total income earned by the highest-income group and analyse the income distribution with the data given.</td>
<td>Assignment 1</td>
</tr>
<tr>
<td>Activity</td>
<td>Description</td>
<td>Duration</td>
<td>Notes</td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>-------------</td>
<td>----------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Show the percentages of total income earned by different income groups in Hong Kong from 1971-2006. (TM2) Ask students to guess the graph showing the data and changes.</td>
<td>5</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Show the changes graphically. Ask students to give a simple interpretation of the graph.</td>
<td>5</td>
<td>An excel programme was uploaded to the website of EDB. Assignment 2.</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Show the income distribution of three countries, and ask students to compare the income inequality among them. (TM3)</td>
<td>3</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Invite one to two students from groups to share their views. Give feedback and comment when necessary.</td>
<td>5</td>
<td>- Assignment 3</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Round up: explain income growth and income inequality may not have direct relationship.</td>
<td>5</td>
<td>Suitable for more able students. Assignment 4.</td>
<td></td>
</tr>
</tbody>
</table>
### Teaching Material 1 (TM1)

Study this exhibit and guess the percentages of total income earned by the highest- income and the lowest-income groups in the US and Hong Kong with a partner.

#### The percentages of total income earned by different income groups in the US and Hong Kong

<table>
<thead>
<tr>
<th>Income group</th>
<th>Graphic representation</th>
<th>Percentage of total income earned in the US (2007)</th>
<th>Percentage of total income earned in Hong Kong (2006)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest 20%</td>
<td><img src="image1.png" alt="Graph" /></td>
<td>3.4</td>
<td>2.9</td>
</tr>
<tr>
<td>Second 20%</td>
<td><img src="image2.png" alt="Graph" /></td>
<td>8.8</td>
<td>7.5</td>
</tr>
<tr>
<td>Third 20%</td>
<td><img src="image3.png" alt="Graph" /></td>
<td>14.7</td>
<td>12.5</td>
</tr>
<tr>
<td>Fourth 20%</td>
<td><img src="image4.png" alt="Graph" /></td>
<td>22.8</td>
<td>20.1</td>
</tr>
<tr>
<td>Highest 20%</td>
<td><img src="image5.png" alt="Graph" /></td>
<td>50.3</td>
<td>57</td>
</tr>
</tbody>
</table>

*Remarks: Teachers can refer to the figures in 2006 Population By-census Thematic Report: Household Income Distribution in Hong Kong (P.14)*

Sources:
### Distribution of Household Incomes in Hong Kong (1971-2006)

(Teacher may round up these figures to whole numbers)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest 20%</td>
<td>6.2</td>
<td>4.6</td>
<td>4.3</td>
<td>3.2</td>
<td>2.9</td>
</tr>
<tr>
<td>Second 20%</td>
<td>10.2</td>
<td>9.8</td>
<td>9.0</td>
<td>7.8</td>
<td>7.5</td>
</tr>
<tr>
<td>Third 20%</td>
<td>14.3</td>
<td>14.3</td>
<td>13.5</td>
<td>12.6</td>
<td>12.5</td>
</tr>
<tr>
<td>Fourth 20%</td>
<td>20.0</td>
<td>20.9</td>
<td>20.4</td>
<td>19.9</td>
<td>20.1</td>
</tr>
<tr>
<td>Highest 20%</td>
<td>49.3</td>
<td>50.4</td>
<td>52.8</td>
<td>56.5</td>
<td>57.0</td>
</tr>
</tbody>
</table>

Unit: % of total income

Source: Hong Kong Census and Statistics Department

### Percentages of income earned by different income groups in HK from 1971 to 2006

![Graph showing the distribution of household incomes from 1971 to 2006.](image-url)
Teaching Material 3 (TM3)

The following table shows the percentages of total income earned by different income groups in three countries. Compare the data and discuss the income inequality among them.

(Discussion Flow: first in pairs, then in groups of four)

<table>
<thead>
<tr>
<th></th>
<th>Lowest 20%</th>
<th>Second 20%</th>
<th>Third 20%</th>
<th>Fourth 20%</th>
<th>Highest 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country A</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>25</td>
<td>45</td>
</tr>
<tr>
<td>Country B</td>
<td>5</td>
<td>12</td>
<td>15</td>
<td>23</td>
<td>45</td>
</tr>
<tr>
<td>Country C</td>
<td>5</td>
<td>8</td>
<td>16</td>
<td>26</td>
<td>45</td>
</tr>
</tbody>
</table>

**Suggested answers:**

A is less equal than B, because its lower-income groups (i.e. the lowest 40%) have a smaller percentage share in total income than B.

A is more equal than C, because its lower-income groups (i.e. the lowest 40%) have a larger percentage share in total income than C.
F. Assignments

Assignment 1

The following tables show the percentages of total income earned by the different quintiles of Countries A and B in a certain year.

<table>
<thead>
<tr>
<th>Country A</th>
<th>Percentage of the total income (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest 20%</td>
<td>5</td>
</tr>
<tr>
<td>Second 20%</td>
<td>8</td>
</tr>
<tr>
<td>Third 20%</td>
<td>15</td>
</tr>
<tr>
<td>Fourth 20%</td>
<td>22</td>
</tr>
<tr>
<td>Highest 20%</td>
<td><strong>50</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country B</th>
<th>Percentage of the total income (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest 20%</td>
<td>6</td>
</tr>
<tr>
<td>Second 20%</td>
<td>10</td>
</tr>
<tr>
<td>Third 20%</td>
<td>18</td>
</tr>
<tr>
<td>Fourth 20%</td>
<td>24</td>
</tr>
<tr>
<td>Highest 20%</td>
<td><strong>42</strong></td>
</tr>
</tbody>
</table>

* note: teacher may give the information of the highest income group or leave it blank

a. Determine the percentages of income earned by the highest-income households in these countries.

A is 50%, B is 42%

b. Which country, A or B, has a greater income inequality? Why? Support your answer with suitable data.

**Country A has a greater income inequality because the ratio of the highest-income to the lowest-income is 50/5=10, while that of country B is only 42/6=7.**

Alternative answers:

**Country A has a greater income inequality because its lower income groups (i.e. the lowest 40%) have a smaller percentage share in total income than Country B.**
Assignment 2

a. Determine the percentages of total income of different income groups (20%) and complete Table 2 with reference to the data in Table 1.

b. Sketch the trends of percentages of total income earned by different income groups (quintiles). Then explain how the income inequality changed during the period.

Distribution of Household Incomes in Hong Kong (1971-2001)
(Teacher may round up the figures to whole numbers)

Table 1

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest 10%</td>
<td>2.3</td>
<td>1.4</td>
<td>1.3</td>
<td>0.9</td>
</tr>
<tr>
<td>Second 10%</td>
<td>3.9</td>
<td>3.2</td>
<td>3.0</td>
<td>2.3</td>
</tr>
<tr>
<td>Third 10%</td>
<td>5.1</td>
<td>4.4</td>
<td>4.0</td>
<td>3.4</td>
</tr>
<tr>
<td>Fourth 10%</td>
<td>5.1</td>
<td>5.4</td>
<td>5.0</td>
<td>4.4</td>
</tr>
<tr>
<td>Fifth 10%</td>
<td>7.0</td>
<td>6.5</td>
<td>6.1</td>
<td>5.6</td>
</tr>
<tr>
<td>Sixth 10%</td>
<td>7.3</td>
<td>7.8</td>
<td>7.4</td>
<td>7.0</td>
</tr>
<tr>
<td>Seventh 10%</td>
<td>9.0</td>
<td>9.4</td>
<td>9.0</td>
<td>8.8</td>
</tr>
<tr>
<td>Eighth 10%</td>
<td>11.0</td>
<td>11.5</td>
<td>11.4</td>
<td>11.1</td>
</tr>
<tr>
<td>Ninth 10%</td>
<td>14.7</td>
<td>15.2</td>
<td>15.5</td>
<td>15.3</td>
</tr>
<tr>
<td>Highest 10%</td>
<td>34.6</td>
<td>35.2</td>
<td>37.3</td>
<td>41.2</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Hong Kong Census and Statistics Department
Assignment 2: Suggested Solution

Distribution of Household Incomes in Hong Kong (1971-2001)

(a) Table 2

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest 20%</td>
<td>6.2</td>
<td>4.6</td>
<td>4.3</td>
<td>3.2</td>
</tr>
<tr>
<td>Second 20%</td>
<td>10.2</td>
<td>9.8</td>
<td>9.0</td>
<td>7.8</td>
</tr>
<tr>
<td>Third 20%</td>
<td>14.3</td>
<td>14.3</td>
<td>13.5</td>
<td>12.6</td>
</tr>
<tr>
<td>Fourth 20%</td>
<td>20.0</td>
<td>20.9</td>
<td>20.4</td>
<td>19.9</td>
</tr>
<tr>
<td>Highest 20%</td>
<td>49.3</td>
<td>50.4</td>
<td>52.8</td>
<td>56.5</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

(b) The trends of percentages of total income earned by different income groups

Suggested answer:

The total percentage of total income earned by the low-income groups (lowest, second and third lowest 20%) had dropped gradually from 1971 to 2001, while that of the highest income group (highest 20%) increased steadily. That means the income distribution became more uneven.
Assignment 3

The following table shows the percentages of total income earned by the lowest and the highest-income groups of some countries in a certain year.

**Percentages of total income earned by the lowest and highest-income groups (20%) in selected countries**

<table>
<thead>
<tr>
<th>Country</th>
<th>Lowest 20% of households</th>
<th>Highest 20% of households</th>
<th>Ranking of income inequality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>0.58 (2003)*</td>
<td>2.6</td>
<td>62.1</td>
</tr>
<tr>
<td>Canada</td>
<td>0.326 (2000)</td>
<td>7.2</td>
<td>39.9</td>
</tr>
<tr>
<td>Germany</td>
<td>0.283 (2000)</td>
<td>8.5</td>
<td>36.9</td>
</tr>
<tr>
<td>Indonesia</td>
<td>0.343 (2002)</td>
<td>8.4</td>
<td>43.3</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>0.525 (2001)***</td>
<td>3.2</td>
<td>56.5</td>
</tr>
<tr>
<td>New Zealand</td>
<td>0.362 (1997)</td>
<td>6.4</td>
<td>43.8</td>
</tr>
<tr>
<td>South Korea</td>
<td>0.316 (1998)</td>
<td>7.9</td>
<td>37.5</td>
</tr>
<tr>
<td>Russia</td>
<td>0.399 (2002)</td>
<td>6.1</td>
<td>46.6</td>
</tr>
</tbody>
</table>

Unit: % of total income

(http://devdata.worldbank.org/wdi2006/contents/Table2_8.htm)

**Remarks:**

* It is the Gini Coefficient. Survey year is given in the brackets.

** Canada and Indonesia would be reversed in World Bank’s ranking. The World Bank ranked the income inequalities of the economies by Gini Coefficients.

*** Hong Kong Census and Statistics Department, 2006 Population By-census Thematic Report: Household Income Distribution in Hong Kong (P.14)
Questions:

a. Rank these countries in descending order of inequality according to the ratios of the percentages of total income earned by the lowest 20% to that of the highest 20% groups.

b. The World Bank ranks these countries as follows:

   Brazil, Hong Kong, Russia, New Zealand, Indonesia, Canada, South Korea, Germany.

Is there any discrepancy between your answer in (a) and that of the World Bank? What is the reason for the discrepancy?

   Discrepancy exists (The order of Canada and Indonesia is reversed) because the World Bank uses another indicator (Gini coefficient).

   

c. Can you think of any limitations of using the percentages of total income earned by the lowest and highest-income groups to indicate the income inequality?

   If only the percentages of total income earned by the lowest and highest-income groups are used without taking the income distribution among the income groups between the two extremes into account, then the overall level of income inequality cannot be accurately reflected.
Assignment 4

Read the following extract and answer the questions.

Even though poverty has fallen dramatically in the East Asia region, the widening gap between rural and urban incomes in many countries is one of the main reasons for increasing inequality at the national level.

The poverty headcount rate at the US$2-a-day level is estimated to have fallen to about 27 percent in 2007, down from 29.5 percent in 2006 and 69 percent in 1990, but more than 90 percent of the poor in the East Asia region live in rural areas now, the vast majority earning their living in agriculture, poverty has now become an overwhelmingly rural problem.

Source:

a. The above extract points out an apparent contradictory economic phenomenon. What is it?

Poverty seems decrease, but the gap between the rich and the poor rises.

b. Explain how such contradiction exists. (for more able students)

Rapid development and growth in urban areas make the income of the people increase; however, people living in rural areas where agriculture is the main source of income are still suffering from poverty. Hence the income gap between the urban and rural areas in East Asian areas is widened.
### 2.1 Percentages of total income earned

**Activity 3**

*(for more able students)*

A. **Objective:**
- To interpret the change of income inequality from the changes of the percentages of total income earned by different income groups graphically.

B. **Time required:** 15 minutes

C. **Materials needed:** One set of teaching materials (TM1)

D. **Teaching plan and instructional procedures:**

<table>
<thead>
<tr>
<th>Teacher Activities</th>
<th>Student Activities</th>
<th>Time (mins)</th>
<th>Target Content/ Skills</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| 1. Show the changes of the percentages of total income earned by different income groups graphically. (TM1) | Work in pairs to discuss the changes and explain the effect on income inequality. | 5 | • Interpret the changes of the percentages of total income earned by different income groups in graph.  
• Understand the limitation of comparing the highest and the lowest-income groups. | TM1 |
| 2. Invite randomly one to two students to explain their answers. | Listen and jot down notes. | 5 | | |
| 3. Comment and give feedback. | Finish Assignment 1 and 2. | 5 | Explain the change in income inequality with regard to the changes of all income groups. | |
E. Teaching Materials

**Teaching Material 1 (TM1)**

The following graphs show the changes of the percentages of total income earned by different income groups in four countries. Study them carefully and explain the changes/trends and the change in income distribution.

**Suggested answers:**

- **Country A:** The percentages of total income earned by different income groups do not change, so income distribution does not change either.
- **Country B:** The percentage of total income earned by the highest-income group increases while that of the lowest-income group decreases, so income inequality increases.
- **Country C:** The percentage of total income earned by the high-income group (the highest and the forth quintiles) increases while that of the low-income group (the second and the lowest quintiles) decreases; so income inequality increases.
- **Country D:** The percentage of total income earned by the high-income group decreases while that of the low-income group increases, so income inequality decreases.
F. Assignment

Assignment 1 (for more able students)

The following diagrams show the trends of the income distribution of three countries, X, Y and Z, over the same period. Explain how the distribution of income changes in each country.
Assignment 2

Q.1 The following table shows the percentages of total income earned by different income groups of Country X in 1990 and 2000 respectively.

<table>
<thead>
<tr>
<th>Country X</th>
<th>1990</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income group/ Quintile</td>
<td>Percentage of the total income (%)</td>
<td>Percentage of the total income (%)</td>
</tr>
<tr>
<td>Lowest 20%</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Second 20%</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Third 20%</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Fourth 20%</td>
<td>21</td>
<td>22</td>
</tr>
<tr>
<td>Highest 20%</td>
<td>50</td>
<td>52</td>
</tr>
</tbody>
</table>

a. Determine the percentage of the income earned by the highest-income households.

b. Explain how the income inequality changed.

The income inequality of this country increased because the percentage of total income earned by the high-income group increased, while the percentage of total income earned by the low-income group decreased.

Q.2 The following table shows the percentages of total income earned by different income groups of Country Y in 1995 and 2005 respectively.

<table>
<thead>
<tr>
<th>Country X</th>
<th>1995</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income group/ Quintile</td>
<td>Percentage of the total income (%)</td>
<td>Percentage of the total income (%)</td>
</tr>
<tr>
<td>Lowest 20%</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Second 20%</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Third 20%</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>Fourth 20%</td>
<td>22</td>
<td>20</td>
</tr>
<tr>
<td>Highest 20%</td>
<td>49</td>
<td>49</td>
</tr>
</tbody>
</table>

a. Determine the percentage of income earned by the lowest-income groups.

b. Explain how the income inequality changed.

The income inequality of this country decreased because the percentage of total income earned by the lower-income groups (the second and the third quintiles) increased, while the percentage of total income earned by the higher-income group (the fourth quintiles) decreased.
Q.3  **(for more able students)**

The lowest-income group of a country earns more than they did ten years ago. Is it necessarily true that the income distribution of this country becomes more even? Please explain.

It is not necessarily true because both the low-income group and high-income group may earn more in absolute term, but the percentage of total income of the high-income group may increase while that of the low-income group decreases, resulting in a less even income distribution.

G. Teacher’s reference


2.2: The Lorenz Curve

Objectives:

After the lessons, students will be able to

1. identify the boundaries of a Lorenz Curve;
2. understand the presentation of income inequality in a Lorenz Curve;
3. understand the relationship between the change in income inequality and the shift of the Lorenz Curve;
4. point out the major disadvantage of using a Lorenz Curve to compare income inequality between countries. (for more able students)

Prerequisite knowledge:

1. An understanding of mapping information from a graph.
2. An understanding of the limitation of measuring income inequality with the percentages of total income earned by the lowest and highest-income groups.

Time allocation:

40-50 minutes

Learning Activities:

Three learning activities
### 2.2 The Lorenz Curve

#### Activity 1: Boundaries of a Lorenz Curve

**A. Objective:** To understand the boundaries of a Lorenz Curve in general.

**B. Time required:** 12 minutes

**C. Materials needed:** two tables of income distribution (TM1-2)

**D. Teaching plan and instructional procedures:**

<table>
<thead>
<tr>
<th>Teacher Activities</th>
<th>Student Activities</th>
<th>Time (mins)</th>
<th>Target Content/ Skills</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Explain the meaning of cumulative percentage of total income and households (TM1)</td>
<td>Listen and jot down notes.</td>
<td>1</td>
<td>Review and apply the learning of last section.</td>
<td></td>
</tr>
<tr>
<td>2. Ask students to consider the relationship between two variables when all households have equal income.</td>
<td>Think and discuss in pairs.</td>
<td>2</td>
<td>Making prediction with reasons.</td>
<td>• An excel programme was uploaded to the website of EDB so that teacher can generate Lorenz Curves in class.</td>
</tr>
<tr>
<td>3. Show a Lorenz Curve (Line of Equality) which indicates equal distribution of income. Ask students to find the missing value in Table 1.</td>
<td>Determine the missing values in Table 1 either individually or in pairs.</td>
<td>2</td>
<td>Understand the upper boundary of the Lorenz Curve and map data from graph.</td>
<td>• Teacher may generate a Line of Equality with the information from TM1, and a special Lorenz Curve (all income earned by the</td>
</tr>
<tr>
<td>4. Define Line of Equality.</td>
<td>Listen and jot down notes.</td>
<td>1</td>
<td>Understand the meaning of perfect equality and the corresponding shape of the Lorenz Curve.</td>
<td></td>
</tr>
<tr>
<td>5. Show a Lorenz Curve indicating extreme inequality (TM2) and ask students to</td>
<td>Determine the missing values in Table 2 either individually or in pairs.</td>
<td>2</td>
<td>Understand the lower boundary of the Lorenz Curve.</td>
<td></td>
</tr>
<tr>
<td>Determine the income distribution and the missing value in Table 2.</td>
<td>and map data from graph.</td>
<td>richest 20% with the information from TM2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>6. Show a Lorenz Curve showing extreme inequality.</strong></td>
<td>Listen and jot down notes.</td>
<td>1. Learn the shape of the Lorenz Curve showing extreme inequality.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>7. Ask students where a Lorenz Curve would lie in general and why.</strong></td>
<td>Discuss in pairs.</td>
<td>2. Speculate and predict the position of a Lorenz Curve based on its boundaries.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>8. Conclude the position and shape of a Lorenz Curve in general and give assignment.</strong></td>
<td>Listen and try to sketch some Lorenz Curves.</td>
<td>1. Confirm speculation and reflect on the process of prediction.</td>
<td>Assignment 1.</td>
<td></td>
</tr>
</tbody>
</table>
E. Teaching Materials

Teaching Material 1 (TM1)

<table>
<thead>
<tr>
<th>Quintile</th>
<th>Households</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percentage (%)</td>
<td>Cumulative Percentage (%)</td>
</tr>
<tr>
<td>Lowest 20%</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Second 20%</td>
<td>20</td>
<td>40</td>
</tr>
<tr>
<td>Third 20%</td>
<td>20</td>
<td>60</td>
</tr>
<tr>
<td>Fourth 20%</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>Highest 20%</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 1: The cumulative percentages of households and total income of 3 points on Line of Equality (to be done by students)

<table>
<thead>
<tr>
<th>Point on Line of Equality</th>
<th>Cumulative percentage of households</th>
<th>Cumulative percentage of total income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Point 1</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>Point 2</td>
<td><strong>48%</strong></td>
<td>48%</td>
</tr>
<tr>
<td>Point 3</td>
<td>90%</td>
<td><strong>90%</strong></td>
</tr>
</tbody>
</table>
Teaching Material 2 (TM2)

(Note: this Lorenz Curve shows all incomes earned by the richest 20%)

<table>
<thead>
<tr>
<th>Quintile</th>
<th>Households</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percentage (%)</td>
<td>Cumulative Percentage (%)</td>
</tr>
<tr>
<td>Lowest 20%</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Second 20%</td>
<td>20</td>
<td>40</td>
</tr>
<tr>
<td>Third 20%</td>
<td>20</td>
<td>60</td>
</tr>
<tr>
<td>Fourth 20%</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>Highest 20%</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 2: The cumulative percentages of households and total income of 3 points on this particular Lorenz Curve (to be done by students)

<table>
<thead>
<tr>
<th>Point on Lorenz Curve</th>
<th>Cumulative percentage of households</th>
<th>Cumulative percentage of total income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Point 1</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>Point 2</td>
<td>48</td>
<td>0</td>
</tr>
<tr>
<td>Point 3</td>
<td>90**</td>
<td>50</td>
</tr>
</tbody>
</table>

**Assuming all incomes are evenly distributed among households of the highest 20%**
General Shape of a Lorenz Curve

Cumulative % of total income

Cumulative % of households

Line of Equality

Lorenz Curve
F. Assignment

Assignment 1

Suppose the total incomes of both countries A and B are $5000.
In Country A, all households earn equal income.
In Country B, the richest households (20%) earn all the income.

a. Fill in the following table to show
I. the percentages of total income earned by different income groups, and
II. the cumulative percentages of total income earned by different income groups.

<table>
<thead>
<tr>
<th>Income Group</th>
<th>Percentage of total income earned (%)</th>
<th>Cumulative percentage of total income earned (%)</th>
<th>Country A</th>
<th>Country B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest 20%</td>
<td>20</td>
<td>20</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Second 20%</td>
<td>20</td>
<td>40</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Third 20%</td>
<td>20</td>
<td>60</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fourth 20%</td>
<td>20</td>
<td>80</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Highest 20%</td>
<td>20</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Conclusion:

In general, the Lorenz Curve of a country lies under the line of equality. When the income distribution is more even, the Lorenz Curve will be closer to the line of equality. When the income distribution is more unequal, the Lorenz Curve will be farther away from the line of equality.
2.2 The Lorenz Curve

**Activity 2: The relationship between Income Distribution and Lorenz Curve**

A. Objectives:
- To relate the position of a Lorenz Curve to income inequality.
- To relate the change of income distribution to the change of the position of a Lorenz Curve.

B. Time required: 25 minutes

C. Materials needed: One page of data for generating a Lorenz Curve, and TM1-2

D. Teaching plan and instructional procedures:

<table>
<thead>
<tr>
<th>Teacher Activities</th>
<th>Student Activities</th>
<th>Time (mins)</th>
<th>Target Content/ Skills</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Show three Lorenz Curves and ask “What do you think about the income inequality among these three countries?”</td>
<td>Work in pairs to discuss and propose a prediction.</td>
<td>3</td>
<td>Figure out the income inequality according to the positions of the Lorenz Curves.</td>
<td>• Generate three Lorenz Curves using data from TM1 and the excel programme.</td>
</tr>
<tr>
<td>2. Ask students to find the missing values in Table 1.</td>
<td>Work in pairs find the missing values and the cumulative percentage of total income.</td>
<td>3</td>
<td>Map data from graphs.</td>
<td>• Teacher may revise Table 1 according to the needs of students.</td>
</tr>
<tr>
<td>3. Ask students to explain the income inequalities and positions of Lorenz Curves according to the information of Table 1.</td>
<td>Discuss and explain the income inequalities among three countries in groups of four.</td>
<td>4</td>
<td>Confirm the income inequalities with information of Table 1, and the positions of Lorenz Curves.</td>
<td></td>
</tr>
<tr>
<td>4. Feedback and comment on students’ answers and give assignment.</td>
<td>Listen and learn. Finish Assignment 1 at home or in class.</td>
<td>3</td>
<td>Understand the relationship between the position of a Lorenz Curve and income inequality.</td>
<td></td>
</tr>
</tbody>
</table>
5. Go over the events in TM2 briefly and ask students to discuss the change of income inequality, and hence the shift of the Lorenz Curve.

<table>
<thead>
<tr>
<th>5</th>
<th>Form groups of four, and each group discusses one event for 4 mins.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Identify the change in income inequality and relate such change to the shift of the Lorenz Curve.</td>
</tr>
</tbody>
</table>

6. Invite one representative from each of the four groups to report.

<table>
<thead>
<tr>
<th>5</th>
<th>Listen and think.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Conclude the relationship between the change in income inequality and the shift of the Lorenz Curve.</td>
</tr>
</tbody>
</table>

7. Feedback, comment, and give assignment.

<table>
<thead>
<tr>
<th>2</th>
<th>Listen and reflect on determining the relationship. Finish Assignment 2.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
E. Teaching Materials

**Teaching Material 1 (TM1)**

The following table shows the income distribution of countries B, M and G. (B, M and G are Brazil, Malaysia and Germany)

Fill in the missing values in the following table.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percentage of income (%)</td>
<td>Percentage of income (%)</td>
<td>Percentage of income (%)</td>
</tr>
<tr>
<td></td>
<td>Cumulative percentage of income (%)</td>
<td>Cumulative Percentage of income (%)</td>
<td>Cumulative Percentage of income (%)</td>
</tr>
<tr>
<td>Lowest 20%</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Second 20%</td>
<td>6</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>14</td>
<td>22</td>
</tr>
<tr>
<td>Third 20%</td>
<td>11</td>
<td>20</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>18</td>
<td>40</td>
</tr>
<tr>
<td>Fourth 20%</td>
<td>18</td>
<td>38</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>46</td>
<td>23</td>
<td>63</td>
</tr>
<tr>
<td>Highest 20%</td>
<td>62</td>
<td>100</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>37</td>
<td>100</td>
</tr>
</tbody>
</table>

For convenience, all values are in whole numbers.

Source: World Development Indicator 2006, World Bank
Table 1 shows the income distribution of a country under the following conditions:

A. $2,000 of income of the highest-income group is transferred to the lowest-income group.
B. Every household earns 10% more.
C. All households have an additional annual income of $2000.
D. All households have to pay a lump sum annual tax of $1000.

<table>
<thead>
<tr>
<th>Income group</th>
<th>Total annual income</th>
<th>A Income transfer from the highest-income groups</th>
<th>B 10% additional income</th>
<th>C $2000 additional income</th>
<th>D Lump sum tax of $1000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Income earned ($)</td>
<td>* (%)</td>
<td>Income earned ($)</td>
<td>* (%)</td>
<td>Income earned ($)</td>
</tr>
<tr>
<td>Lowest 20%</td>
<td>2 000</td>
<td>3</td>
<td>4 000</td>
<td>7</td>
<td>2 200</td>
</tr>
<tr>
<td>Second 20%</td>
<td>7 000</td>
<td>15</td>
<td>7 000</td>
<td>20</td>
<td>7 700</td>
</tr>
<tr>
<td>Third 20%</td>
<td>10 000</td>
<td>32</td>
<td>10 000</td>
<td>37</td>
<td>11 000</td>
</tr>
<tr>
<td>Fourth 20%</td>
<td>16 000</td>
<td>58</td>
<td>16 000</td>
<td>62</td>
<td>17 600</td>
</tr>
<tr>
<td>Highest 20%</td>
<td>25 000</td>
<td>100</td>
<td>23 000</td>
<td>100</td>
<td>27 500</td>
</tr>
<tr>
<td>Total</td>
<td>60 000</td>
<td></td>
<td>60 000</td>
<td></td>
<td>66 000</td>
</tr>
</tbody>
</table>

Change in distribution | More even | No change | More even | Less even
Shift of Lorenz Curve | To the left | No change | To the left | To the right

Table 1

* Cumulative percentages of income earned (%) are given to show the change of income distribution more clearly. The percentages are rounded up to whole numbers and the teacher may omit this column for more able students.
Table 2: The relationship between the change in income inequality and the shift of the Lorenz Curve.

<table>
<thead>
<tr>
<th>Event</th>
<th>Change in income inequality</th>
<th>Explanation for the change</th>
<th>Shift of the Lorenz Curve</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Income of the highest-income groups is transferred to the lowest-income groups.</td>
<td>More equal, or less unequal</td>
<td>The percentage of total income of the highest-income group decreases and that of the total income of the lowest-income group increases.</td>
<td>Shift to the left, closer to the Line of Equality.</td>
</tr>
<tr>
<td>B. Every household earns 10% more.</td>
<td>No change</td>
<td>The percentages of total income of different income groups do not change.</td>
<td>Lorenz curve does not shift.</td>
</tr>
<tr>
<td>C. All households have an additional annual income of $2000.</td>
<td>More equal</td>
<td>The percentage of total income of high-income groups drops and the percentage of total income of low-income groups grows.</td>
<td>Shift to the left, closer to the Line of Equality.</td>
</tr>
<tr>
<td>D. All households have to pay a lump sum annual tax of $1000.</td>
<td>Less equal</td>
<td>The percentage of total income of high-income groups increases and the percentage of total income of low-income groups decreases.</td>
<td>Shift to the right, farther away from the Line of Equality.</td>
</tr>
</tbody>
</table>
F. Assignments

Assignment 1
The following table shows the income distribution of Hong Kong in 1971 and 2001.

1. Explain how the income distribution changed.
2. In the following diagram, the two Lorenz Curves show the income distribution of Hong Kong in 1971 and 2001. Identify with reasons which curve shows the income distribution of 2001.

**Distribution of Household Incomes in Hong Kong (1971-2001)**

<table>
<thead>
<tr>
<th>Income group</th>
<th>Cumulative percentage of total income 1971</th>
<th>Cumulative percentage of total income 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest 20%</td>
<td>6.2</td>
<td>3.2</td>
</tr>
<tr>
<td>Second 20%</td>
<td>16.4</td>
<td>11</td>
</tr>
<tr>
<td>Third 20%</td>
<td>30.7</td>
<td>23.6</td>
</tr>
<tr>
<td>Fourth 20%</td>
<td>50.7</td>
<td>43.5</td>
</tr>
<tr>
<td>Highest 20%</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Hong Kong Census and Statistics Department

Teachers can also generate the curves using the excel programme provided.
Assignment 2

How would the following events/cases change the income distribution of a country? Illustrate your answers with suitable Lorenz Curves.

The following Lorenz Curve can serve as an original situation. Students can analyze the following cases based on this graph.

![Lorenz Curve](image)

a. Some income of the low-income groups is transferred to the high-income groups.
b. Government gives a fixed lump sum subsidy of $500 to the low-income groups.
c. Every household earns 5% less.
d. All households have an additional annual income of $1000.
e. All households have to pay a lump sum annual tax of $500.

Remarks:
Cases c, d and e may be suitable for more able students.
2.2 The Lorenz Curve

Activity 3: Disadvantage of using the Lorenz Curve
(for more able students)

A. Objective: To learn the major disadvantage of using the Lorenz Curve.

B. Time required: 10 minutes

C. Materials needed: One page of income distribution data of countries X and Y (TM1)

D. Teaching plan and instructional procedures:

<table>
<thead>
<tr>
<th>Teacher Activities</th>
<th>Student Activities</th>
<th>Time (mins)</th>
<th>Target Content/ Skills</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Show the income distribution of two countries (TM1). Ask students to find the percentages of income earned by the highest-income groups and compare the income distribution of these two countries.</td>
<td>Work in pairs to find the percentages of income earned by the highest-income groups and compare the income distribution of the two countries.</td>
<td>4</td>
<td>• Calculate the percentages of income earned by the highest-income groups. • Compare the income distribution by inspecting the cumulative percentages of total income earned by different income groups.</td>
<td>• Generate the Lorenz Curves with the information from TM1 and the excel programme provided.</td>
</tr>
<tr>
<td>2. Show the Lorenz Curves of countries X and Y.</td>
<td>Relate Lorenz Curves to the income distribution of the two countries.</td>
<td>2</td>
<td>Relate the income distribution to the Lorenz Curve.</td>
<td></td>
</tr>
<tr>
<td>3. Ask students to explain the relationship of income distribution and Lorenz Curves based on the data of countries X and Y.</td>
<td>Discuss in pairs.</td>
<td>2</td>
<td>Explore the major disadvantage of using the Lorenz Curve.</td>
<td></td>
</tr>
<tr>
<td>4. Explain the major disadvantage of using the Lorenz Curve and give assignment.</td>
<td>Listen and jot down notes. Finish Assignment 1.</td>
<td>2</td>
<td>Confirm the major disadvantage of using the Lorenz Curve.</td>
<td></td>
</tr>
</tbody>
</table>
E. Teaching Materials

**Teaching Material 1 (TM1)**

The Lorenz Curves of Countries X and Y (2000) intersect.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percentage of</td>
<td>Cumulative</td>
</tr>
<tr>
<td></td>
<td>income (%)</td>
<td>% of income (%)</td>
</tr>
<tr>
<td>Lowest 20%</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Second 20%</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Third 20%</td>
<td>13</td>
<td>25</td>
</tr>
<tr>
<td>Fourth 20%</td>
<td>21</td>
<td>46</td>
</tr>
<tr>
<td>Highest 20%</td>
<td>54</td>
<td>100</td>
</tr>
</tbody>
</table>

*The teacher may use the excel programme provided to generate two Lorenz Curves.*

The difference in income distribution between countries X and Y is not clear. Though the low-income groups of country X have a higher percentage of total income, representing a more even income distribution, the highest-income group of country X has higher percentage of total income, representing a less even income distribution. Furthermore, as the Lorenz Curves of these countries intersect, it is hard to tell which country has greater income inequality.

F. Assignment  (For more able students)

What are the pros and cons of using Lorenz Curve to show income inequality?

**Possible Answers:**

One advantage of using Lorenz Curve to show income inequality is that the **shape and the position of** the curve can indicate the income inequality well. A disadvantage is that when the Lorenz Curves of two countries intersect, it would be difficult to judge the **the difference of income distribution in that case**.
**2.3 : The Gini Coefficient**

**Objectives:**

After the lessons, students will be able to
1. understand how income inequality is indicated by the Gini Coefficient;
2. interpret the meaning of the Gini Coefficient;
3. compare the Gini Coefficients of selected countries with that of Hong Kong;
4. identify the effect of change in family size on the Gini Coefficient in Hong Kong.*

(*More able students would be expected to explain the effect of change in family size on the Gini Coefficient in Hong Kong.)

**Prerequisite knowledge:**

1. An understanding of the characteristics and limitations of the Lorenz Curve.
2. The knowledge of determining the area of a triangle.

**Time required:**

60- 65 minutes

**Learning Activities:**

Three learning activities
### 2.3 The Gini Coefficient

**Activity 1: Understanding of Gini coefficient**

**A. Objectives:**
- To learn the calculation of Gini Coefficient.
- To understand the boundaries of Gini Coefficient.

**B. Time required:** 20 minutes

**C. Materials needed:**
- one page of income distribution data of selected countries (TM1)
- two graphs showing two special Lorenz Curves for finding the Gini Coefficient (TM2)
- one page of information on features of Gini Coefficient (TM3)
- one worksheet for students

**D. Teaching plan and instructional procedures:**

<table>
<thead>
<tr>
<th>Teacher Activities</th>
<th>Student Activities</th>
<th>Time (mins)</th>
<th>Target Content/ Skills</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Demonstrate cases of Lorenz Curves based on data from TM1. Ask students to explore the differences of income inequality among three countries.</td>
<td>Attend to presentation. Discuss in pairs the differences of income inequality among three countries.</td>
<td>3</td>
<td>Understand that Lorenz Curves may have limitations in comparing the income inequalities among economies in some cases.</td>
<td>• Generate Lorenz Curves with the excel programme. • TM1</td>
</tr>
</tbody>
</table>

| 2. Explain Gini Coefficient is one of the measurements reflecting income inequality. Explain the formula and show the calculation of the Gini Coefficients for two extreme cases. (TM2) | Watch and listen. Check the calculation of the Gini Coefficients and predict the boundaries of Gini Coefficient in pairs. | 5 | Know that Gini Coefficient is one of the measurements reflecting income inequality and is related to the Lorenz Curve. Predict and understand the boundaries of Gini Coefficient. | • TM2 |
3. Briefly go over the positions/shapes of two Lorenz Curves (LC$_2$, LC$_3$) and the counting method. Ask students to determine the Gini Coefficients in pairs (worksheet).

<table>
<thead>
<tr>
<th>Task</th>
<th>Action</th>
<th>Skill Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form groups of four, each has one pair working on LC$_2$ and another on LC$_3$.</td>
<td>Form groups of four, each has one pair working on LC$_2$ and another on LC$_3$.</td>
<td>4 Understand the relationship between the Lorenz Curve and the Gini Coefficient.</td>
</tr>
<tr>
<td>Supervise students as they determine Gini Coefficients in pairs and in groups.</td>
<td>Share in pair and explain their work in groups.</td>
<td>3 Collaboration and counting skills.</td>
</tr>
<tr>
<td>Invite one representative from each of the two groups to report the steps and answers.</td>
<td>Listen and check.</td>
<td>2 Presentation skill.</td>
</tr>
<tr>
<td>Feedback; comment with TM3 if necessary, and give assignment.</td>
<td>Listen and finish assignments 1 and 2.</td>
<td>3 Consolidation of learning.</td>
</tr>
</tbody>
</table>

- TM3
- Assignment 1 & 2.
E. Teaching Materials

**Teaching Material 1 (TM1)**

(For more able students, teacher may ask them to explain why it is difficult to conclude the differences in income inequality among different countries by inspecting their Lorenz Curves.)

**Teaching Procedures:**

1. Generate the Lorenz Curves of Canada, China and Portugal (or Egypt, Taiwan and USA) with the excel programme. (For convenience, teacher is advised to round up the values to whole numbers.)

2. Explain that it is easier to conclude that Canada has less income inequality than China and Portugal by inspecting their Lorenz Curves (the same case for USA, Egypt and Taiwan).

3. Explain that it is difficult to compare the income inequality between China and Portugal by inspecting their Lorenz Curves (the same case for Egypt and Taiwan). Therefore, it is necessary to develop another measurement of income inequality.

**“Cumulative % of total income” of different levels of “cumulative % of total households” of some selected countries in 1991**

<table>
<thead>
<tr>
<th>Country</th>
<th>Gini Coefficient</th>
<th>20%*</th>
<th>40%</th>
<th>60%</th>
<th>80%</th>
<th>100%</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada (H)</td>
<td>0.2765</td>
<td>7.68**</td>
<td>21.36</td>
<td>40.32</td>
<td>65.16</td>
<td>100</td>
<td>A</td>
</tr>
<tr>
<td>China (P)</td>
<td>0.362</td>
<td>6.44</td>
<td>17.84</td>
<td>32.69</td>
<td>63.94</td>
<td>100</td>
<td>A</td>
</tr>
<tr>
<td>Portugal (H)</td>
<td>0.3563</td>
<td>6.14</td>
<td>18.11</td>
<td>35.29</td>
<td>59.58</td>
<td>100</td>
<td>A</td>
</tr>
<tr>
<td>Egypt (P)</td>
<td>0.32</td>
<td>8.71</td>
<td>21.20</td>
<td>37.47</td>
<td>58.91</td>
<td>100</td>
<td>B</td>
</tr>
<tr>
<td>Taiwan (P)</td>
<td>0.3049</td>
<td>7.37</td>
<td>20.61</td>
<td>38.13</td>
<td>61.34</td>
<td>100</td>
<td>B</td>
</tr>
<tr>
<td>USA (H)</td>
<td>0.3794</td>
<td>4.5</td>
<td>15.2</td>
<td>31.8</td>
<td>55.9</td>
<td>100</td>
<td>B</td>
</tr>
</tbody>
</table>

(H) refers to household income and (P) refers to personal income

* 20%, 40%, 60%, 80% and 100% are “cumulative % of total households”.
** 7.68 means 7.68% of total income earned by the lowest 20% of total households in Canada, while 21.36 means 21.36% of total income earned by the lowest 40% of total households.

Source:
(http://go.worldbank.org/UVPO9KSJJ0)
Fig A. Lorenz Curves of Canada, China and Portugal

Fig B. Lorenz Curves of Egypt, Taiwan and USA
Teaching Material 2 (TM2)

1. Review the Lorenz Curve and the labels of the two axes with students, and explain the labels if necessary.

2. Review the Line of Equality and the Line of Absolute Inequality with students.

3. Define the variables of the formula of Gini Coefficient. Gini Coefficient = Area A / Area A+B (where A is the area between the Line of Equality and the Lorenz Curve, Area B is the area below the Lorenz Curve).

4. Ask students to predict the boundaries of the Gini Coefficient.

5. Ask students to determine the Gini Coefficient if the distribution is represented by the Line of Equality (LE). Show the steps of finding the value of Gini Coefficient (either by counting squares or calculating the area of triangle).

6. Ask students to determine the Gini Coefficient if the distribution is represented by the Lorenz Curve (LC1). Show the steps. (Teacher may explain that the value of Gini Coefficient ranges from 0 to 1 inclusive. When all income is earned by one household, the Gini Coefficient will be 1.)

For simplicity, we assume that each side of the squares in the figure is 1 unit long.

For the Line of Equality (LE):
Area of A(A1) is 0, Area of A1+B=50, Gini Coefficient=0/50=0

For Lorenz Curve (LC1):
Area A1+B=50, Area B= 2x10/2=10
Area A1 =Area A1+B-Area B
= 50-10 =40
Gini Coefficient = 40/50=0.8
Worksheet

1. Form groups of four with two pairs in each group (A and B).
2. **Pair A** to determine the value of Gini Coefficient of LC₂.
3. **Pair B** to determine the value of Gini Coefficient of LC₃.
4. Each pair take turn to explain the working steps and the answer, while the other pair check and confirm the working steps and the answer.
5. Explain the possible relationship between the position (and shape) of the Lorenz Curve and the Gini Coefficient.
   *(When the Lorenz Curve is closer to the Line of Equality, the Gini Coefficient is smaller and closes to zero, representing a smaller income inequality. When the Lorenz Curve is more concave, the area of A is larger and so is the value of the Gini Coefficient, representing a greater income inequality.)*

**For Pair A**

For LC₂,

- Area of A₂ is $2 \times 10/2 = 10$ (see note),
- Area $A₂ + B = 50$,
- Gini Coefficient $= 10/50 = 0.2$

**Note:**

$$\text{Area } A₂ + B = \frac{Y \times Y}{2} = 50; \quad \therefore \quad Y = 10$$

$$\text{LE} = \sqrt{10² + 10²} = 10\sqrt{2}$$

$$Z = \sqrt{1² + 1²} = \sqrt{2}$$

Area of $A₂ = \frac{10\sqrt{2} \times \sqrt{2}}{2} = \frac{10 \times 2}{2} = 10$

For simplicity, we assume that each side of the squares in the figure is 1 unit long.
For Pair B

For LC3,
The Area $A_3$ is $(5 \times 10/2) = 25$, the Area $A_3 + B = 50$
Gini Coefficient $= 25/50 = 0.5$

Alternative method:

- Area of $\triangle CDE = \frac{7 \times 2}{2} = 7$
- Area of $\triangle DEHG = 2 \times 3 = 6$
- Area of $\triangle FDH = \frac{8 \times 3}{2} = 12$
- Area of $\triangle CFG = \frac{10 \times 10}{2} = 50$

Area of $A_3 = $ Area of $\triangle CFG - $ Area of $\triangle CDE - $ Area of $\triangle DEHG - $ Area of $\triangle FDH$

$= 50 - 7 - 6 - 12$

$= 25$

Gini Coefficient $= 25/50 = 0.5$
Teaching Procedure:

1. Ask students to explain the calculation of Gini Coefficient with reference to the diagram on the top.

2. Ask students to explain the boundaries of Gini Coefficient (0-1) and the level (more/less even) of income inequality indicated by different Gini Coefficients.

3. Ask students to explain the relationship between the change in the position/shape of the Lorenz Curve and the change of Gini Coefficient, and the relationship between such changes and income inequality.
F. Assignments

Assignment 1

Fill in the missing information by referring to the diagram.

![Cumulative % of total income vs. Cumulative % of households diagram]

a. Gini Coefficient is the ratio of area $A$ divided by the sum of areas A and B.

b. Area A is the area between the Line of Equality and the **Lorenz Curve**.

c. Area B is the area under the **Lorenz Curve**. So Gini Coefficient = Area A / (Area under the Line of **Equality**).

d. When A is zero, the Gini Coefficient will be **zero**. The income distribution will be completely **even**. It is because the Lorenz Curve is the **Line of Equality**, so all households have **equal income**.

e. When B is zero, the Gini Coefficient will be **1**. The income distribution will be completely **unequal**. It is because the **Lorenz Curve** stands extremely vertical and is farthest away from the **Line of Equality**. Therefore, all income is in the hand of the **richest household (i.e. one household)**.
Assignment 2

How did the income distribution of Hong Kong change during the period (1981-2006)? Suggest possible reasons (one to three reasons, depending on the abilities of students) for your answer.

Table 1 - Gini Coefficient of Hong Kong, 1981-2006

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.451</td>
<td>0.453</td>
<td>0.467</td>
<td>0.518</td>
<td>0.525</td>
<td>0.533</td>
</tr>
</tbody>
</table>

Source: Hong Kong Census and Statistics Department
2.3 The Gini Coefficient

**Activity 2: Comparing the Gini Coefficient between Hong Kong and other countries**

**A. Objectives:**
- To compare the Gini Coefficients of Hong Kong and some selected countries.
- To discuss the relationship between income inequalities and the per capita GDP of the countries.
- To identify factors that affect Hong Kong’s income inequality.

**B. Time required:** 30 minutes

**C. Materials needed:**
- One page of the Gini Coefficient data of selected countries. (TM1)
- One page of the Gini Coefficient data of Hong Kong, the trend on the number of people engaged in the selected industry between 1980 and 2008 and a minute extract from the 6th meeting of the Committee on Social Development and Quality of Life of the Commission on Strategic Development held on 30 November 2006. (TM2)

**D. Teaching plan and instructional procedures:**

<table>
<thead>
<tr>
<th>Teacher Activities</th>
<th>Student Activities</th>
<th>Time (mins)</th>
<th>Target Content/ Skills</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ask students to</td>
<td>Form groups and</td>
<td>5</td>
<td>A basic concept of</td>
<td>TM 1</td>
</tr>
<tr>
<td>form groups of four.</td>
<td>discuss the level</td>
<td></td>
<td>per capita GDP.</td>
<td></td>
</tr>
<tr>
<td>Explain briefly the</td>
<td>of income inequality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>meaning of per capita GDP. Ask students to answer Q1.</td>
<td>among these countries.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Supervise the</td>
<td>Discuss and answer.</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>group discussion.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Show the Gini</td>
<td>Answer Q2 according</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coefficients of different</td>
<td>to the Gini Coefficients</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>countries in TM 1 and</td>
<td>given.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ask students to answer Q2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Show the answers of Q2 and ask students answer Q3.</td>
<td>Discuss the difference between the answers of Q1 and Q2.</td>
<td>5</td>
<td>There is no direct relationship between the income inequality and the income of the countries.</td>
<td></td>
</tr>
</tbody>
</table>
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5. Ask students to identify factors that lead to Hong Kong’s income inequality. Discuss and answer. 15 Deduce the factors affecting income inequality. TM 2

E. Teaching Materials

Teaching Material 1 (TM1)

Table 1  Information on per capita GDP and Gini Coefficient of selected countries

<table>
<thead>
<tr>
<th>Per capita GDP (PPP) (2007)</th>
<th>Gini Coefficient*</th>
<th>Survey Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States US$45,800</td>
<td>0.45</td>
<td>2007</td>
</tr>
<tr>
<td>Hong Kong, China US$42,000</td>
<td>0.53</td>
<td>2007</td>
</tr>
<tr>
<td>Australia US$37,300</td>
<td>0.31</td>
<td>2006</td>
</tr>
<tr>
<td>Finland US$36,000</td>
<td>0.26</td>
<td>2005</td>
</tr>
<tr>
<td>United Kingdom US$35,000</td>
<td>0.34</td>
<td>2005</td>
</tr>
<tr>
<td>Japan US$33,500</td>
<td>0.38</td>
<td>2002</td>
</tr>
<tr>
<td>Korea, South US$25,000</td>
<td>0.35</td>
<td>2006</td>
</tr>
<tr>
<td>South Africa US$9,700</td>
<td>0.65</td>
<td>2005</td>
</tr>
<tr>
<td>China US$5,400</td>
<td>0.47</td>
<td>2007</td>
</tr>
<tr>
<td>Philippines US$3,200</td>
<td>0.46</td>
<td>2006</td>
</tr>
<tr>
<td>Vietnam US$2,600</td>
<td>0.37</td>
<td>2004</td>
</tr>
</tbody>
</table>

* The data shown in the CIA’s web is Gini Index which is 100 times of Gini Coefficient and represented by percentage. To avoid students’ confusion, Gini Coefficient is presented here.

Source: Central Intelligence Agency (CIA)
Questions:

1. Based on the information given in Table 1 (i.e. per capita GDP (PPP) in 2007), guess the level of income inequality of those selected countries and rank them accordingly (from the lowest level of income inequality to the highest level of income inequality). Explain your answers.

2. Rank these countries in descending order of inequality according to the Gini Coefficients given. Finland, Australia, United Kingdom, South Korea, Vietnam, Japan, United States, Philippines, China, Hong Kong, South Africa

3. Based on your ranking in Q.2, please explain whether there is a relationship between the income inequality and the per capita income of the countries. There is no direct relationship between per capita GDP (national income) and Gini Coefficient (degree of income inequality). For instance, even though Hong Kong enjoyed high per capita GDP, its income inequality was even greater than that in some developing countries, e.g. Vietnam and Philippines. Meanwhile, even though the per capita GDP of Vietnam was the lowest among these countries, its income inequality was lower than that in the United States.
**Teaching Material 2 (TM2)**

**Source 1**

Number of people engaged in the selected industry (1980-2008)

![Graph showing the number of people engaged in the selected industry (1980-2008)]

**Key:**
- ① Manufacturing
- ② Wholesale, retail and import/export trades, restaurants and hotels
- ③ Financing, insurance, real estate and business services
- ④ Construction sites (manual workers only)

Source: Census and Statistical Department, Table 017: Number of Establishments, Persons Engaged and Vacancies (Other than those in the Civil Service) Analyzed
(http://www.censtatd.gov.hk/showtableexcel2.jsp?tableID=017)

**Source 2**

Gini Coefficient of Hong Kong from 1981 to 2006

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gini Coefficient</td>
<td>0.451</td>
<td>0.453</td>
<td>0.476</td>
<td>0.518</td>
<td>0.525</td>
<td>0.533</td>
</tr>
</tbody>
</table>

**Questions:**

1. Which industry faced a dramatically decrease in the amount of employment over the past twenty years? Please explain.

   *Manufacturing industry. The shift of manufacturing factories to the mainland had a significant impact on the employment opportunities of the workers. Hence the number of workers engaged in the manufacturing sector has been decreasing.*

2. Source 2 shows that Hong Kong’s Gini Coefficient has been rising continuously over the past twenty years. How did the trend shown in Source 1 affect the Gini Coefficient? Can you think of some reasons?

   *Source 1 shows that the number of workers engaged in manufacturing industry has dropped dramatically during the past twenty years. This reflects that the importance of manufacturing industry in Hong Kong has been declining. However, workers engaged in this industry may not be able to find a high-skilled jobs in the up-market e.g. retails and financial sector. This partly explains the widening income differentials in Hong Kong.*

**Source 3**

Minute extract from the 6th meeting of the Committee on Social Development and Quality of Life of the Commission on Strategic Development held on 30 November 2006.

*Similar to other world cities such as London and New York, it was expected that the development of Hong Kong towards a services-oriented economy would experience a widening income inequality. The emergence of world cities entailed a major cluster of high value-added business activities such as financial and up-market consumer services. Members noted that those people engaged in the activities would likely be able to earn high income, but the number of jobs created was not large.*

Source: The minute of 6th meeting of the Committee on Social Development and Quality of Life of the Commission on Strategic Development held on 30 November 2006

Source 4

Average Wage Rates for Employees received in the selected Industry Sector (1982-2008)

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Key:
1. Transport Services
2. Wholesale, retail and import/exports trades, restaurants and hotels
3. Financing, insurance, real estate and business services
4. Manufacturing

Source: Census and Statistical Department, Table 021, Average Wage Rates for Employees up to Supervisory Level (Excluding Managerial and Professional Employees) by Broad Occupational Group by Selected Industry Sector (1982-2008)
Question:

3. Source 3 shows that members from the committee noted that those workers engaged in the high value-added business activities such as financial and up-market consumer services would likely be able to earn high income. However, Source 4 shows that the income generated from financial sectors was not significantly higher than that from the manufacturing sectors. Why there is a divergence between these two sources?

Possible Answers:

- Those employees engaged in the financial sectors received commission which was not reported to the Census and Statistics Department. Thus, the data collected by the Census and Statistical Department did not reflect the full picture.
- Even though the number of people engaged in the financial sector was much higher than that in manufacturing sector, only a small portion of them (e.g. managerial and professional employees) were able to earn very high income, thus, the average salary of financial sector would not significantly higher than that of the manufacturing sector.

Remarks:

Teacher can access more information on factors affecting income inequality and social mobility from the minute of the 6th meeting of the Committee on Social Development and Quality of Life of the Commission on Strategic Development held on 30 November 2006. (http://www.cpu.gov.hk/english/documents/csd/csd_sc_summary_6.pdf)
2.3: Gini Coefficient

Activity 3: Effect of the change in family size on Gini Coefficient in HK

A. Objective:
- To understand the effect of the change in family size on the Gini Coefficient in Hong Kong.

B. Time required: 10-15 minutes. (depending on the participation or abilities/ readiness of students)

C. Materials needed: One page of information about the effect of household size on income distribution (TM1)

D. Teaching plan and instructional procedures:

<table>
<thead>
<tr>
<th>Teacher Activities</th>
<th>Student Activities</th>
<th>Time (mins)</th>
<th>Target Content/ Skills</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ask students to suggest factors that would affect income distribution in Hong Kong.</td>
<td>Think and share in pairs.</td>
<td>2</td>
<td>Deduce the factors affecting the Gini Coefficient.</td>
<td>• If students are ready to participate or more capable, teacher may arrange group discussion.</td>
</tr>
<tr>
<td>2. Either explain directly with Exhibits 1 and 2 in TM1 or ask students to discuss according to the suggestions in TM1.</td>
<td>Listen and jot down notes or discuss in pairs and share answers in groups.</td>
<td>5</td>
<td>Understand how the change in household size affects the Gini Coefficient.</td>
<td>• *Extra time for discussion and presentation.</td>
</tr>
<tr>
<td>3. Invite one representative from one to two groups to share their views.</td>
<td>Listen, jot down notes and reflect on the thinking process.</td>
<td>0/5*</td>
<td>Communication skills.</td>
<td></td>
</tr>
<tr>
<td>4. Give feedback and assignment.</td>
<td>Listen, jot down notes and finish Assignment 1.</td>
<td>3</td>
<td>Consolidation of learning.</td>
<td></td>
</tr>
</tbody>
</table>

* optional activity
E. Teaching Materials

**Teaching Material 1 (TM1)**

Teacher will explain, illustrating with the following case, how the family size affects the Gini Coefficient.

For more able students, teacher may ask them to study the case and the extract in groups of four. Pair A study Exhibit 1 (the case) and Pair B study Exhibit 2 (the extract). Students then explain how the household size affects the Gini Coefficient.

**Exhibit 1: A case showing the change in household size and change in Gini Coefficient**

<table>
<thead>
<tr>
<th>Situation 1: 20 years ago</th>
<th>Situation 2: Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>There were two families: The Ho and the Lee.</td>
<td>There are five families originated from the Hos and the Lees. All Mr. Lee’s sons married to the daughters of Mr. Ho.</td>
</tr>
<tr>
<td>1. The Lee family: Mr. and Mrs. Lee with three sons The total family income was $40,000.</td>
<td>1. The Lee family (first generation): Mr. and Mrs. Lee. Total family income is $10,000.</td>
</tr>
<tr>
<td>2. The Ho family: Mr. and Mrs. Ho with three daughters The total family income was $40,000.</td>
<td>2. The Ho family (first generation): Mr. and Mrs. Ho. Total family income is $10,000.</td>
</tr>
<tr>
<td>Total annual income was $80,000. Gini Coefficient was zero.</td>
<td>3. The first Lee family (second generation): Mr. and Mrs. Lee. Total family income is $20,000.</td>
</tr>
<tr>
<td></td>
<td>4. The second Lee family (second generation): Mr. and Mrs. Lee. Total family income is $20,000.</td>
</tr>
<tr>
<td></td>
<td>5. The third Lee family (second generation): Mr. and Mrs. Lee. Total family income is $20,000.</td>
</tr>
<tr>
<td></td>
<td>Total annual income is $80,000. Gini Coefficient is 0.15.</td>
</tr>
</tbody>
</table>

Source: Cases presented by Census and Statistics Department, 2007
Exhibit 2: An extract of a report

Impact of the change in family size on income inequality

Big families with three generations living together were common in the 1960s and 1970s in Hong Kong. But nowadays, there are increasing numbers of small families, elderly households and elderly living alone. These changes have caused great effect on household income distribution. As the average size of household was diminishing, the growth in average household income has slowed down. Many old people are living separately from their children. Many of them do not have any income, but live on past savings or social security. As a result, there is a great increase of small but low-income families. This change in family structure has significant and obvious impact on the Gini Coefficient.

Source:
Adapted from KWOK Kwok Chuen, Income Distribution of Hong Kong and the Gini Coefficient.

* Teacher can access the full text at http://www.eabfu.gov.hk/en/pdf/income.pdf
F. Assignments

Assignment 1

Answer the following questions by referring to the following report:

Some legislators asked the Head of Census and Statistics Department for the Gini Coefficient / ratio when they discussed the findings of the 2006 by-census. But Mr. FUNG Hing-wang, the department head, claimed that ordinary Gini Coefficient might not reflect the real gap between the rich and the poor, but agreed to determine the ordinary Gini Coefficient and modified Gini Coefficient for the legislators in mid 2007.

Some legislators in other occasion urged the Hong Kong SAR Government to raise the Old Age Allowance from HK$900 to HK$1,000 in order to help the poor elderly.

Sources:
Ming Pao 13 April 2007 and RTHK news 10 December 2007

a. Why did the legislators ask for the Gini Coefficient, but not the Lorenz Curve?
   
   It is easier to understand and compare the Gini Coefficients of other years or countries.

b. Mr. Fung claimed that (ordinary) Gini Coefficient might not reflect the real gap between the rich and the poor, do you agree with him? Justify your answer.

   Answer should be positive, for the actual income of different income groups may be affected by some government policies or measures.

c. How would the income inequality and Gini Coefficient (based on post-tax post-social transfer monthly household income) change if the HKSAR Government increases the Old Age Allowance as proposed by some legislators?

   The income distribution would be more equal/even and the Gini Coefficient (based on post-tax post-social transfer monthly household income) would decrease because the actual income of the elderly, who probably have no or low income, would increase.
Challenging Questions (For more able students)

d. What factors would Mr. Fung consider to prepare the modified Gini Coefficient? Explain your answers.

The factors may include household size, government transfer payment to the poor and tax on the high-income groups.

e. Given that the Gini Coefficient of Hong Kong in 2001 was 0.525, some legislators expected the ordinary Gini Coefficient in 2006 to change. What did they expect? Suggest two possible reasons behind their expectation by referring to some economic events happened in Hong Kong between 2001 and 2006.

They expected it to increase. There is no standard answer for the reasons.

According to the Hong Kong Census and Statistics Department, the original and adjusted Gini Coefficients for 1996, 2001 and 2006 were as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>1996</th>
<th>2001</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original Gini Coefficient</td>
<td>0.518</td>
<td>0.525</td>
<td>0.533</td>
</tr>
<tr>
<td>Adjusted Gini Coefficient</td>
<td>0.466</td>
<td>0.470</td>
<td>0.475</td>
</tr>
<tr>
<td>(based on Post-tax post-social transfer household income)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Hong Kong Census and Statistics Department, Thematic Report: Household Income Distribution in Hong Kong (P.14), 2006
Assessment 1

Fill in the missing information by referring to the diagram below.

a. Usually the Gini Coefficient of a country lies between $0$ and $1$.

b. When the Gini Coefficient is close to $1$, the income distribution is more uneven/unequal because most income is earned by the richest households, whereas the lowest-income group earns much less.

c. When the Gini Coefficient is close to $0$, the income distribution is more even/equal because the highest-income group does not earn much more than the lowest-income group.

d. When Area A expands, the Gini Coefficient will be nearer to $1$; and the income distribution will be more uneven/unequal. When Area A diminishes, the Gini Coefficient will be nearer to $0$; and the income distribution will be more even/equal.
Assessment 2

Why the Gini Coefficient is more frequently used in news report to describe income inequality than the Lorenz Curve?

*It is because it is easier for readers to compare the values of different periods or/and different countries and easier to see the level of income inequality.*

Assessment 3 *(for more able students)*

Please refer to table 1 for the Gini Coefficients of two countries.

**Table 1: Gini Coefficients of Countries A and B**

<table>
<thead>
<tr>
<th>Country</th>
<th>Gini Coefficient</th>
<th>Survey Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0.5</td>
<td>2001</td>
</tr>
<tr>
<td>B</td>
<td>0.52</td>
<td>1996</td>
</tr>
</tbody>
</table>

Given the information in Table 1, suggest some possible reasons that the income distribution in Country A may not be more equal than that in Country B. Explain your suggestion.

**Possible answers:**

(i) Different years of survey. (ii) The Gini Coefficients may not have taken taxes and social transfer into consideration. (iii) The Gini Coefficients may be on household basis, and Country A may have a smaller proportion of small families.
Assessment 4 (for more able students)

What is the trend of Gini Coefficient of Hong Kong? Explain one to three possible reasons for the trend.

<table>
<thead>
<tr>
<th>Year</th>
<th>1996</th>
<th>2001</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gini Coefficient</td>
<td>0.518</td>
<td>0.525</td>
<td>0.533</td>
</tr>
</tbody>
</table>

Source: Hong Kong Census and Statistics Department, 2006 Population By-census Thematic Report: Household Income Distribution in Hong Kong (P.14)

Possible Answer:

The Gini Coefficient increases because of the following reasons: steady rise of small but low-income families; widening wage difference among workers of different education level and working experience; and a boom in the services sector, especially the financial sector, and a decline in the manufacturing sector.

(Other reasonable answers are possible)

Teacher’s reference:

4. Reports of census and by-census by Hong Kong Census and Statistics Department
5. Summary of the views expressed at the Sixth Meeting of the Committee on Social Development and Quality of Life of the Commission on Strategic Development held on 30 November 2006 (www.cpu.gov.hk/english/documents/csd/csd_sc_summary_6.pdf)
   (http://en.wikipedia.org/wiki/Gini_coefficient)
7. World Bank (2006), World Development Indicators. World Bank
Unit 3: Factors Affecting Income Inequality

Objectives:

Students will be able to

1. identify and explain the major factors affecting wage rates;
2. analyse the sources of wage differentials between different occupations /jobs in Hong Kong;
3. identify the sources of income for an individual;
4. explain the factors affecting the income inequality;
5. understand under certain conditions income cannot (and should not) be equalised across individuals;
6. suggest policies that the government can adopt to narrow the income gap.

Time allocation:

160 minutes

Learning Activities:

Two learning activities
3.1: Factors of wage differentials

A. Objectives:
After the lesson, students will be able to:
• state that demand and supply of labour determine the wage rates;
• identify several specific factors that affect wage rates;
• identify the sources that contribute to the wage differentials across occupations/jobs.

B. Prerequisite knowledge:
Meaning of demand, supply, price determination and derived demand.

C. Materials needed:
1. Eight sets of occupation cards, each set has four cards labelled with different occupations. The card sets are divided into two groups: the first group consists of Post A to Post D, while the other group consists of Post E to Post H.
2. Blank A3/A4 sheets for students to draw a mind-map.
3. Worksheet for homework.

D. Time required: 80 minutes

E. Teaching plan and Instructional procedures:

<table>
<thead>
<tr>
<th>Teacher Activities</th>
<th>Student Activities</th>
<th>Time (mins)</th>
<th>Target Content/ Skills</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ask students to form eight groups of four or five.</td>
<td>1. Discuss in groups and complete the tasks required.</td>
<td>15</td>
<td>• Share views with others and compromise.</td>
<td></td>
</tr>
<tr>
<td>2. Distribute cards labelled with different occupations.</td>
<td>2. Representatives from each group stick their cards on the blackboard.</td>
<td></td>
<td>• The ability to present and justify choices.</td>
<td></td>
</tr>
<tr>
<td>3. Ask students to guess the monthly salary of each occupation and write it down on each card. Also indicate the demand and supply situation of the occupation.</td>
<td>3. Two groups will be chosen to explain their answers.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Then rank the occupations based on the estimated salaries.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher Activities</td>
<td>Student Activities</td>
<td>Time (mins)</td>
<td>Target Content/ Skills</td>
<td>Remarks</td>
</tr>
<tr>
<td>--------------------</td>
<td>--------------------</td>
<td>-------------</td>
<td>------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>5. *Show the answers and ask students to check their answers.</td>
<td>4. Check the answers.</td>
<td>20</td>
<td>• Recognise that there are wage differentials across occupations. • Students should know that the statistics are just estimated average wages and differentials exist within occupations.</td>
<td>* The demand and supply situation and the salary of different occupations are determined by the economic situation at that point of time. Teacher is advised to revise the answers accordingly.</td>
</tr>
<tr>
<td>6. Ask groups that rank the posts differently to share their views.</td>
<td>5. Express views on the ranking.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Remind students that the statistics are just an estimated average wages and variations may exist.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Ask students why there are such wage differentials across occupations, and also within the same occupation. More specifically, why an accounting supervisor earns more than a toilet cleaner?</td>
<td>6. Conduct group discussion.</td>
<td>20 + 15</td>
<td>• Collaboration and presentation skills.</td>
<td></td>
</tr>
<tr>
<td>7. Write down factors that contribute to the differentials.</td>
<td>7. Organise the factors in form of a mind-map.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Organise the factors in form of a mind-map.</td>
<td>9. Two or three groups will be chosen to present their mind-maps.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Concludes and summarises the lesson.</td>
<td>Homework: Write an essay on “Why do some soccer players earn much more than a secondary school principal?”</td>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
F. Teaching materials:

Worksheet: Mind-map

Use a mind-map to organise the factors that contribute to the wage differentials between different jobs.
Post A:

Regional HR Director - Banking and Finance

Demand is high / low; supply is high / low

Estimated salary (per month):

($100,000 – 120,000)

Ranking:

1
Post B:

Senior Engineer
(University Graduate with 5-8 years of experience)

Demand is high / low; supply is high / low

Estimated salary (per month):
($25,000 - $35,000)

Ranking: __2__
Post C:

Computer Operator/Data Entry Clerk
(F.5 Graduate with related diploma)

Demand is **high** / **low**; supply is **high** / **low**

Estimated salary (per month):

**($8,000 - $12,000)**

Ranking:

___3___
Post D:

Toilet Cleaner
(in sanitary and similar services)

Demand is high / low; supply is high / low

Estimated salary (per month):
($4,850)

Ranking:
4
Post E:

Accounting Clerk
(F.5 Graduate + LCCI intermediate level with one to two years of experience)

Demand is high / low; supply is high / low

Estimated salary (per month):
($5,800 - $9,000)

Ranking:
3
Post F:

Secondary School Principal
(University Graduate with 20 years of experience)

Demand is high / low; supply is high / low

Estimated salary (per month):
($83,000)

Ranking:
2
Post G:

Chief Justice, Court of Final Appeal

Demand is high / low; supply is high / low

Estimated salary (per month):

($227,000)

Ranking:

1
Post H:

Clerk
(F.5 Graduate, no experience required)

Demand is high / low; supply is high / low

Estimated salary (per month):
($4,800)

Ranking:
4
G. Assignment:

Assignment 1:

Read the following information.

Peter graduated from university last year and now works in an accounting firm as junior accountant. Without any working experience, he earns more than $15,000 per month.

However, Henry has been a junior clerk in a shipping firm for five years after completing secondary school education. He is very experienced and hardworking, but his boss is only willing to pay him $9,000 per month.

(a) Apart from experience and education level, explain why Henry and Peter have different wage payment. Illustrate your answer with the aid of a demand and supply diagram.

(b) What factors contribute to the difference in the demand for, and also the supply of, junior accountants and junior shipping clerks? Explain your answer.

(c) Can you suggest any situations under which the salaries of a junior shipping clerk may be higher than that of a junior accountant?
Assignment 2:

For more able students

Read the following information.

In England, the average salary of a soccer player in Barclays Premier League is £650,000 per year while James Gordon Brown, the Prime Minister of the U.K., earns about £187,000 per year. But in Hong Kong, our Chief Executive earns about HK$5,000,000 per year while a local soccer player rarely earns more than HK $1,000,000 per year.

Write an essay to explain the above phenomenon based on the concepts you learned in the lesson.
3.2: The major factors of income differentials

A. Objectives:

After the lesson, students will be able to:

• identify the sources of income for an individual;
• explain the factors affecting the income inequality;
• understand under certain conditions income cannot (and should not) be equalised across individuals;
• suggest policies that the government can adopt to narrow the income gap.

B. Prerequisite knowledge:

• Wage differentials across occupations.
• Concept of flow versus stock.
• The fact that income can be generated from wealth.
• Concept of human capital.

C. Materials needed:

1. Information cards of different characters
2. Blank A4/A3 papers for drawing mind-maps

D. Time required: 80 minutes
### Factors Affecting Income Inequality

#### E. Teaching plan and instructional procedures:

<table>
<thead>
<tr>
<th>Teacher Activities</th>
<th>Student Activities</th>
<th>Time (mins)</th>
<th>Target Content/ Skills</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ask students to form eight groups of four or five.</td>
<td>1. Discuss in groups and complete the tasks.</td>
<td>10</td>
<td>• Share their views and compromise.</td>
<td></td>
</tr>
<tr>
<td>2. Each group will receive a card, which bears a photo and/or name of an individual with some data. There are totally 8 different cards.</td>
<td>2. Group the factors and present the result using a mind-map.</td>
<td>20</td>
<td>• Brainstorm and offer ideas.</td>
<td></td>
</tr>
<tr>
<td>3. Ask students to identify the possible sources of income for this individual.</td>
<td>3. Present their work.</td>
<td></td>
<td>• Present and organise information.</td>
<td></td>
</tr>
<tr>
<td>4. Summarise the presentations by pointing out that income can be classified into two main categories, i.e. labour income and non-labour income.</td>
<td>4. Listen to teacher’s presentation.</td>
<td>10</td>
<td>• Presentation skills.</td>
<td></td>
</tr>
<tr>
<td>5. Explain briefly the concepts of wealth and income.</td>
<td>5. Modify the mind-map.</td>
<td></td>
<td>• It is not necessary to refer to the concept of present value or discounting to distinguish the concepts of wealth and income.</td>
<td></td>
</tr>
<tr>
<td>6. Ask students to identify factors that affect the level of income from different sources.</td>
<td>6. Suggest factors affecting income from different sources based on the mind-map.</td>
<td>10</td>
<td>• Presentation skills.</td>
<td></td>
</tr>
<tr>
<td>7. Ask students to identify which factors are ‘controllable’ and which are not.</td>
<td>7. Choose two groups to present their mind-maps.</td>
<td>20</td>
<td>• Classification of relevant information.</td>
<td></td>
</tr>
</tbody>
</table>

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**Unit 3 • Page 101**
### Consolidation

Summarise the sources of income inequality.

### Ask students whether the income differentials should be reduced by government policies.

*Brainstorm and collect different views.*

<table>
<thead>
<tr>
<th>8. Consolidation.</th>
<th>Summarise the sources of income inequality.</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. Ask students whether the income differentials should be reduced by government policies.</td>
<td>8. Brainstorm and collect different views.</td>
<td>7</td>
</tr>
</tbody>
</table>

#### Teaching materials:

![Diagram illustrating factors affecting income inequality]
Mr. Young is a famous soccer player. He earns around US$30 million per year.

1. Possible sources of income:

2. What factors affect his income?
Mr. Chan has been an Executive Director of a listed company since 1984. He holds the degree of Bachelor of Business Administration at CUHK. Mr. Chan earns over HK$200,000 a month.

1. Possible sources of income:

2. What factors affect his income?
Chan Tai Ming is a fireman. He is about 23 years old. He joined the Fire Services Department after he had completed secondary education. He earns HK$14,685 per month.

1. Possible sources of income:

2. What factors affect his income?
Card D

Salesperson, Ms. Ng Mei Lai

Ng Mei Lai is a cake shop salesperson. She is about 23 years old, and has completed secondary education but did not get a good result in HKDSE. Also, she does not have any special skill.

1. Possible sources of income:

2. What factors affect her income?
A famous author, Ms. Rowling has finished a series of masterpieces and gained worldwide attention, won multiple awards, and sold nearly 400 million copies.

1. Possible sources of income:

2. What factors affect her income?
Mr. Cheung was an accountant before he succeeded to be the chairman of a company at the time his father retired. The net worth of the company is HK$10 billion. He earns HK$100 million per year.

1. Possible sources of income:

2. What factors affect his income?
Card G

Cleaner, Mrs. Chui

Mrs. Chui (60 years old) works in a fast food shop as a cleaning staff. She does not have any formal education and vocational training.

1. Possible sources of income:

2. What factors affect her income?
Mr. Butterfly is an American investor, businessperson and philanthropist. Butterfly has amassed an enormous fortune from astute investments. He has current net worth of around US$50 billion.

1. Possible sources of income:

2. What factors affect his income?
G. Assignment

Assignment 1:

1. Compare the sources of income / earning / wealth of Chan Tai Ming and Ng Mei Lai by using the concepts learned in the lesson (you may refer to the mind-map).
2. Do you think that the earning / income / wealth differentials between them are justifiable? Why or why not? Explain your answer.
3. If the differentials are not justifiable, then should the government reduce them? If yes, how?
4. Compare any other two of the eight characters discussed in the lesson.

Assignment 2: (For more able students)

Choose two of the eight characters discussed in the lesson and write an essay to explain whether the income differentials between them should be reduced by government policies. If yes, suggest some policies that can achieve the objective. If no, provide rationale to justify the existence of such differentials.

Characters I choose:

I. _____________________________ and II. _____________________________

I think the income differentials between the two characters (should / should not) be reduced by government policies. It is because ___________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
Unit 4: Equalising income or equalising opportunities

Objectives:

Students will be able to:

1. identify and review the policies of the HKSAR Government on improving income distribution and their rationales;
2. identify different kinds of measures of the HKSAR Government on improving income distribution in five areas (Medical, Housing, Social Welfare, Education and Labour Service);
3. review critically the effects of the HKSAR Government’s measures on improving income distribution;
4. understand and appreciate the needs and expectation of key stakeholders in the issue of income inequality.

Time allocation:

110-130 minutes

Learning activities:

Four learning activities
Activity 1: Group discussion on Government policies on income distribution

A. Objectives:
- To look into the policies and rationales of the HKSAR Government on income distribution.
- After the activity, students will be able to:
  1. identify the two types of policies of the HKSAR Government on improving income distribution;
  2. understand the rationales (equalising income and equalising opportunity) behind the policies of the HKSAR Government on improving income distribution;
  3. review critically the policies and rationales of the HKSAR Government on improving income distribution.

B. Time required: 35 minutes

C. Prerequisite knowledge:
   Public concern about poverty in Hong Kong.

D. Materials needed:
   A news report on the work of Commission on Poverty and guiding questions
E. Teaching plan and instructional procedures:

<table>
<thead>
<tr>
<th>Teacher Activities</th>
<th>Student Activities</th>
<th>Time (mins)</th>
<th>Target Content/ Skills</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ask students to form groups of four.</td>
<td>Form groups and assume different roles: chairperson, secretary, presenter etc.</td>
<td>2</td>
<td></td>
<td>• One article from Ming Pao.</td>
</tr>
<tr>
<td>2. Go over the objectives and discussion questions.</td>
<td>Listen to instructions.</td>
<td>3</td>
<td>Identify government policies on income distribution and the rationales.</td>
<td>• In case of odd number, form groups of four and allow some to be groups of three or five.</td>
</tr>
<tr>
<td>3. Supervise reading of article.</td>
<td>Read and highlight main points of the article.</td>
<td>5</td>
<td></td>
<td>• Liberalism, Utilitarianism, Libertarianism</td>
</tr>
<tr>
<td>4. Encourage students to answer the discussion questions.</td>
<td>Take turn to answer questions and come to a conclusion.</td>
<td>8</td>
<td>Understand government policies on income distribution and the rationales.</td>
<td></td>
</tr>
<tr>
<td>5. Select randomly one representative from every few groups to explain their answers.</td>
<td>Listen and respond to the presentation.</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Comment on reports and introduce some major ways* of improving income distribution.</td>
<td>Revise according to the teacher’s input.</td>
<td>12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The Commission on Poverty (COP) released a report last week. Mr. Stephen Fisher, the Secretary of COP, said that the poor population reached 820,000 in Hong Kong. A number of measures for tackling poverty were put forward in the COP report.

Mr. Fisher said, “The target of COP is not to greatly reduce the number of Comprehensive Social Security Assistance (CSSA) recipients, because over 60% of those on CSSA are the old, the disabled and the long-term patients. These groups of people are not able to work and basically rely on CSSA.” Even though there was a big increase of those on CSSA for three or more years, Mr. Fisher stressed that CSSA was the very basic safety net and therefore did not agree to set a time-limit for receiving CSSA as a time-limit would affect a great many families in Hong Kong.

Mr. Fisher pointed out that when facing the structural change of the Hong Kong economy, the low-skilled, less educated and middle-aged labourers were the first to be hit and hit the hardest. Once they lost their jobs, it would be very difficult for them to get another one. The COP therefore suggested various types of training for them to prepare for the change. For example, those who used to be semi-skilled labourers could now switch to cleansing, to be security guards or to join the food and beverage industry.

Mr. Fisher stressed, “Handing out money to help the poor could only attract applause, but could not solve poverty at the root.” As such, the COP suggested pooling in resources to help the jobless, the low-income and the single parents to get a job, namely to go for “job in place of subsidy”. The most important thing now is to consolidate the various functions of the Employees Retraining Board, the Labour Department and the Social Welfare Department so as to provide one-stop employment assistance.

But some local scholars criticised some measures as being impractical and not helpful to reduce the number of the poor. Mr. Fisher said the public should not hold high expectation of the COP.

Source:
Adopted from 17 June 2007, Ming Pao
Discussion questions

Q1: The HKSAR Government is giving assistance to two groups of people in Hong Kong. Who are they?

They are those who cannot support themselves financially (the old, the disabled and the long-term patients) and workers with very low income.

Q2: The HKSAR Government has different policies for different groups of people. What are these policies? What are the rationales behind these policies? Do you agree to the rationales?

The HKSAR Government provides direct financial support through CSSA to those who cannot support themselves financially and helps the working poor to raise their productivity or expand the source of income.

The rationale behind the policy of financing the first group of people is that they are unable to make money because they have no ability to and/or are not allowed to provide labour services.

The rationale behind the policy of helping the working poor is that they have the ability but the market rate is too low and they could earn more after training or under a new arrangement.

Q3 Please suggest some economic reasons, from society’s point of view, why the Commission on Poverty treats these two groups of people with different policies.
G. Teacher’s reference:


Rich Irony as the Coffers Overflow While Poverty Grows

The red packets given out by our Financial Secretary, Mr. Henry Tang, at the 07-08 Government Budget announcement brought a lot of smiles and applause from people from all walks of lives. Even the recipients of Comprehensive Social Security Allowance Scheme (CSSA) got a piece of the cake with a grant of one month standard rate payment, which is about $1,400 for an adult and $1,600 for a child on CSSA. It was a treat for everyone, but the question is did riches really bring hope or a chance to improve and move ahead. The Financial Secretary’s announcement of a windfall surplus of $55.1 billion in the Consolidated Account is a happy surprise for everyone. It is also a sad irony when viewed against the statistics of growing poverty among the people of Hong Kong, as reported in 2006 Population By-census just a week ago. The Government is getting rich, but there are more poor people and those at the bottom are earning much less than 10 years ago. The number of workers earning less than $6,000 a month has grown to over 700,000. These facts tell us that not all will benefit from the economic growth, and the role of the Government is important to redistribute and balance the gains, so that our society can be more inclusive. Mr. Tang has rightly attempted to make such a move but what is needed is more than a fair dividend of the riches earned. It needs investments and planning for the future, to build capacities and bring hope to the disadvantaged. There are three things that we will ask of a rich Government, who has the prospect of getting richer and richer in the next 5 years: First, to foster productivity and growth, especially for the disadvantaged groups. Surplus resources should be invested to build human capital, to enhance the adaptability of our labour force to meet the changes of an open and knowledge-based economy. We need an overhaul and the establishment of a comprehensive job assistance, job development, training and re-training programme to help our low-skilled and less educated workforce. Tax incentives should be considered to encourage employers to give work opportunities to the disabled and young inexperienced workers. For the elderly and sick, who need care, we need to support these families in the provision of adequate services. Second, resources should be put to ensure the long term sustainability of public finances in the light of an ageing population. There should be incentives and investments to help all and especially the poor to prepare for old age. Currently, low-income earners and homemakers are not required to pay into the Mandatory Provident Fund. Can a rich Government consider paying in part on their behalf, to encourage them to save to lessen the burden that they will eventually rely on public assistance. Investments in primary and preventive health care for the to-be elders may end up saving high medical treatment and long-term care costs for a growing aged population ten years from now. Last but not the least, is the use of surplus economic gains to achieve the
social goals of building a more caring and inclusive society. Impetus in tax and benefit could be used to encourage voluntary efforts, philanthropy and job opportunities for the disadvantaged. The Public Budget is an important tool to achieve both economic and social development goals. It demands a shrewd balance to divide the gains to satisfy all stakeholders on the one hand and to take a prudence stance to invest, to build greater potentials for growth, to bring hope for a better future.

Source:
Christine Fang Meng-sang, Chief Executive of the Hong Kong Council of Social Services, Rich Irony as the Coffers Overflow While Poverty Grows, South China Morning Post, 3 March 2007 (http://www.hkcss.org.hk/documents/CE_20070303_scmp.pdf)

Teacher’s Reference 2

Social Philosophy of Hong Kong Government – Speech made by the Secretary for Health, Welfare and Food, Dr YEOH Eng-kiong to the Legislative Council, 22 January 2003

Four social policy principles:
1. Opportunities should be provided to enable everyone in the community to develop their full potential, and participate in and contribute to the economic and social life in Hong Kong.

2. To provide additional and specific support to the disabled, disadvantaged and vulnerable members of our community.

3. To provide a basic income support safety net.

4. To foster mutual care and support, and to build up the social networks necessary for individuals and families to flourish.
Activity 2: Identify government measures to improve income distribution

A. Objectives:
- To identify the government measures to improve income distribution.
- After the activity, students will be able to identify two types of government measures to improve income distribution in five major policy areas.

B. Time required: 25 minutes

C. Prerequisite knowledge:
Government may even up income distribution through equalising income or equalising opportunities measures.

D. Materials needed:
A list of government measures to improve income distribution in five areas
### E. Teaching plan and instructional procedures:

<table>
<thead>
<tr>
<th>Teacher Activities</th>
<th>Student Activities</th>
<th>Time (mins)</th>
<th>Target Content/ Skills</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ask students to form pairs or trios.*</td>
<td>Form pairs/trios with different roles: Chairperson, secretary or presenter.</td>
<td>2</td>
<td>Collaboration skills.</td>
<td>• Teacher may ask students to collect and read government measures to improve income distribution in five policy areas. • * If there is odd number of students, form groups of four and a few groups with three or five members.</td>
</tr>
<tr>
<td>2. Go over the types of government policies by referring to the outcome of Activity 1.</td>
<td>Listen to instructions.</td>
<td>3</td>
<td>• Remind students on the rationale behind the policies (equalising income and opportunity). • Identify and explain the aims of different measures to improve income distribution in five areas.</td>
<td></td>
</tr>
<tr>
<td>3. Encourage students to answer.</td>
<td>Read the list and take turn to answer with reasons. When the partner(s) disagrees, discuss in pairs/trios and come to conclusive answers. To save time, different pairs/trios may work on different areas.</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Select randomly one representative from every few groups to explain their answers.</td>
<td>Listen and respond to presentations.</td>
<td>5</td>
<td>Communication and presentation skills.</td>
<td></td>
</tr>
<tr>
<td>5. Comment on the reporting.</td>
<td>Revise based on the reporting and comments.</td>
<td>5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Teacher may ask students to collect and read government measures to improve income distribution in five policy areas.
* If there is an odd number of students, form groups of four and a few groups with three or five members.
F. Teaching Materials:

**Measures of the HKSAR Government which affect income distribution**

* Refer to Appendix 2 for the brief descriptions of the following measures.
** There are different aims/effects of each government measure, the materials below only show the major aim/effects on equity of some government measures.

<table>
<thead>
<tr>
<th>Policy Area</th>
<th>Name of Programme/ Measure</th>
<th>Major aim/ effect of measure (on equity)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Medical</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Service charges</td>
<td>Subsidise 96% of the cost of every patient</td>
<td>Equalise income</td>
</tr>
<tr>
<td>2. Fee exemption</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Recipients of CSSA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. &lt;50% of Median Monthly Domestic Household Income (MMDHI,月入中位數)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. With means test on income and asset</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Between 50% and 75% of MMDHI with means test on income and asset</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Health Care Vouchers Scheme (HCVS)</td>
<td>$250 (5 coupons) per year for elderly aged 70 or above</td>
<td>Equalise income</td>
</tr>
<tr>
<td><strong>B. Housing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Low rent housing</td>
<td>Tenants must satisfy the means test on income and asset</td>
<td>Equalise income</td>
</tr>
<tr>
<td>a. Review rent every two years; 10% maximum rent increment; no maximum rent cut</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. If the ratio of rent to income is greater than 18%, rent will be cut by 25%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Rent Allowance for Elderly Scheme</td>
<td>Cash allowance of 60% of the rent of private housing (up to $1,810 for one person, $3,150 for three persons)</td>
<td>Equalise income</td>
</tr>
<tr>
<td>3. Rent Assistance Scheme</td>
<td>50% cut of rent for a maximum of 6 months for tenants of public housing who have short-term financial difficulties</td>
<td>Equalise income</td>
</tr>
</tbody>
</table>
### C. Social Welfare

1. **Comprehensive Child Development Services** (全面兒童發展服務) (proposed) for children aged 0 to 5  
   - Equalise opportunity

2. **Child Development Fund** (兒童發展基金) (proposed)  
   - Equalise opportunity

3. **Comprehensive Social Security Assistance** (CSSA)  
   a. For families of no/low income  
   b. Extra assistance for single parent families  
   - Equalise income

4. **Old Age Allowance** (OAA)  
   a. $1,000 for those aged 65 to 69, subject to income and asset means test  
   b. $1,000 for those aged 70 or above (no specific requirement)  
   - Equalise income

### D. Education

1. **Age 3-5**  
   - **Pre-primary Education Voucher Scheme**  
     - To subsidise local residents to study in kindergartens (up to $48,000 per year)  
     - Equalise opportunity

2. **Age 6-14**  
   a. Free education  
   b. Student Travel Subsidy Scheme  
   c. School-based After-School Learning and Support Programmes (校本課後學習及支援計劃)  
   - Equalise opportunity

3. **Age 15-18** (senior secondary students)  
   a. Free education  
   b. Remission of school fees and public examination fees, and textbook assistance scheme for senior secondary students  
   - Equalise opportunity

4. **Age 18-24**  
   - Grants and loans for post-secondary students  
   - Equalise opportunity

5. **Age 18-65**  
   - Continuing Education Fund (持續進修基金)  
   - Equalise opportunity

### E. Labour Services

1. **Age 15-24**  
   a. Youth Pre-employment Training Programme (展翅計劃青年職前綜合培訓) (15-19)  
   b. Youth Work Experience and Training Scheme (青少年見習就業計劃) (15-24)  
   c. Training and retraining by Employees Retraining Board (僱員再培訓局) (15 or above)  
   - Equalise opportunity
### 2. Age 24-60

<table>
<thead>
<tr>
<th>Scheme Description</th>
<th>Equalise opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Work Trial Scheme (工作試驗計劃)</td>
<td></td>
</tr>
<tr>
<td>b. Employment Programme for the Middle-aged (中年就業計劃) (40 or above)</td>
<td></td>
</tr>
<tr>
<td>c. Transport Support Scheme (pilot) (交通費支援計劃)</td>
<td></td>
</tr>
<tr>
<td>d. Social Enterprise by Community Investment and Inclusion Fund (社區投資共享基金)</td>
<td></td>
</tr>
<tr>
<td>e. Employment services like information services and assistance by the Labour Department</td>
<td></td>
</tr>
<tr>
<td>f. District Partnership Programme (社區協作計劃) run by District Office</td>
<td></td>
</tr>
</tbody>
</table>

### 3. Cleaners, security guards

<table>
<thead>
<tr>
<th>Scheme Description</th>
<th>Equalise opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wage Protection Movement (工資保障運動) executed by the Labour Department</td>
<td></td>
</tr>
</tbody>
</table>

### G. Teacher’s reference:

Websites of Hospital Authority, Housing Authority, Social Welfare Department, Education Bureau and Labour Department of the HKSAR Government.
Activity 3: Examine effects of different government measures on improving post-social transfer income distribution

A. Objectives:
- To examine the effects of different government measures on improving income distribution.
- After the activity, students will be able to:
  1. analyse the effects of some selected government measures on equalising income distribution;
  2. analyse the effects of minimum wages on equalising income distribution;
  3. compare the effects of some selected measures with different aims.

B. Time required: 40-50 minutes (depending on the kind of activity)

C. Prerequisite knowledge:
1. Government may even up income distribution through equalising income or equalising opportunities.
2. Effects of minimum wages on employment.

D. Materials needed: Information sheets of four cases, and guiding questions.

E. Teaching plan and instructional procedures:

<table>
<thead>
<tr>
<th>Teacher Activities</th>
<th>Student Activities</th>
<th>Time (mins)</th>
<th>Target Content/ Skills</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ask students to form groups of four and assign reading materials. #</td>
<td>Form (base) groups of different roles: chairperson, secretary and presenter etc.</td>
<td>2</td>
<td>Collaboration skills.</td>
<td># Each member has different reading materials (A-D).</td>
</tr>
<tr>
<td>2. Go over the objectives, steps## of group discussion and discussion questions. **</td>
<td>Listen to instructions.</td>
<td>3</td>
<td>Get into feelings of different roles and examine effects of different government measures.</td>
<td>## First base group, then expert group, then base group.</td>
</tr>
<tr>
<td>3. Supervise reading and encourage discussion.</td>
<td>Read materials and exchange views.</td>
<td>5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. Supervise expert groups’ discussion.

Form an expert group of three to five persons. Each expert group discusses one of the four cases, in particular, the effects of the measure and draw conclusion.

10 Understand and examine effects of different measures on the poor.

* **Refer to guidelines on small group discussion for details.

5. Supervise view-sharing in base groups.

Return to base groups to share views and to determine which is a more helpful measure.

10

6. Select one representative from every few groups to report, then comment on the reporting.

Revise based on the reporting and teacher’s comments.

10

F. Alternative activities:

Teacher may conduct:
1. a mini-role play after the expert group discussion.

2. a mini-debate after the expert group discussion.

Debate topic: “The HKSAR Government measures to equalise opportunities are better/ more effective in tackling poverty than measures which equalise income”.

3. a panel discussion after the final round of base group discussion. (Teacher selects one representative from every few groups (three to five) to form a panel.) The panel discussion topic is “How the HKSAR Government can even up income distribution effectively?” (extra 10 minutes)
G. Teaching Materials:

Information sheet A

Mr. Chow, a member of the Lok Kwan Cooperative Society

The Lok Kwan Cooperative Society (LKCS) is a social enterprise that has finally won the support of the Community Investment and Inclusion Fund (CIIF). LKCS was founded in 2003 by a group of unemployed construction workers (carpenters, painters, bricklayers and cement workers). It has received a grant of $900,000 from CIIF and since earned a total of $5 million through the provision of decoration and renovation works and building maintenance services.

“We used to make HK$20,000 a month in 1997. A lot of jobs came our way in those good old days. But after the financial crisis, we ran out of jobs for months,” said Mr. Ng, Chairman of LKCS.

Mr. Chow, now 60, was very depressed when he could not get any jobs for almost six months in 2003. After joining LKCS, he has got some renovation and maintenance works and some income. Mrs. Chow has also joined LKCS. She spoke with a smile, “I follow his instructions. I have learned to be more patient with his grumbling and we work much better now.” Though Mr. Chow earns far less than before, he has gained some new experiences such as giving out leaflets in the streets and teaching secondary students about the trade.

LKCS has to be self-sufficient because CIIF is going to stop its funding.

Source:
Adopted from a report of Ming Pao, 7 April, 2007

Guidelines on group discussion:

1. Explain why Mr. and Mrs. Chow has joined LKCS.
   a. How CIIF could help unemployed workers like Mr. Chow? How effective is it?

2. Examine the details of different measures stated in Activity 2 and suggest another possible measure that can help unemployed workers like Mr. Chow. Explain your suggestion.
Lo Wing Kin: 1-Point F.5 graduate

Wing Kin, 19, is a F.5 graduate who scored only 1 point in the HKCE. He had tried over 10 temporary jobs, but with not much qualification, he made little money and could hardly see a bright future.

Acting on the advice of his relative, he joined the Youth Work Experience Training Scheme (YWETS) run by the Labour Department. After an initial training course on human relationship, Lo underwent a 6-month field practice in a hotel, where he learnt a great deal about the trade, such as making the bed, cleaning up rooms, washing toilets, vacuuming carpets and folding towels, etc. It was a hard time for him. Lo recalled, “I have had two unforgettable experiences. I had a guest throwing up all over the room. It took me a lot of effort to clean it up and it was the toughest time ever! Another guest left behind an old tooth brush. So I threw it into the rubbish bin when tidying up the room. Then the guest returned and asked me for the tooth brush. I have since learnt to work with great care after some good scolding from the guest and my supervisor.”

Wing Kin’s good performance during the placement has earned him a full-time job of $8,000 a month in the hotel.

Source:
Adopted from a report of Ming Pao, 19 February 2007

Guidelines on group discussion:

1. a. Explain why Wing Kin had to join YWETS.
   b. Explain how YWETS could help a youth like Lo Wing Kin. How effective is it?

2. Examine the details of different measures stated in Activity 2 and suggest another possible measure that can help a youth like Wing Kin. Explain your suggestion.
Information sheet C

Ah Sheung, a cleaner

Ah Sheung, aged 55, lives alone in a public flat in Tuen Mun. She started to work in a factory at the age of 15 and became a skilled garment worker when she was 18 in 1970. She earned good income in the 70s and 80s while there were a great number of firms exporting garments to the USA and Europe. But when most garment factories moved to the mainland in the 90s, Ah Sheung could no longer find a full-time job in local factories. She was jobless for several years in the late 90s and has since become a cleaner.

Ah Sheung earned about HK$4,000 a month in 2005, but around HK$3,800 in 2006. She usually works for 10 hours a day, walks 30 minutes to go to work, and makes herself a lunch box. After work, she stays home watching TV and seldom goes to the cinema.

On holidays she would have Chinese tea and dim sum for breakfast at the nearby outdoor food court. Afterwards, she would buy food, such as frozen meat, for the whole week. She enjoys singing and dancing in the public park in the afternoon, but could hardly afford to travel outside Hong Kong.

• In 2005, the median of monthly income of an one-person household was $6,000.

Sources:
1. RTHK, Hong Kong Connection, 18 December 2006.
2. Research report on working poor family, Caritas, Hong Kong, 29 April 2006.

Guidelines on group discussion:

1. a. Explain why Ah Sheung has to become a cleaner.
   b. There is a strong voice for introducing a law on minimum wage. Explain the possible impacts of such a law on a cleaner aged over 50, e.g. Ah Sheung. How likely would Ah Sheung be benefitted if there was a law on minimum wage?

2. Examine the details of different measures stated in Activity 2 and suggest another possible measure (apart from minimum wage law) that can help a cleaner like Ah Sheung. Explain your suggestion.
Ah Hung: from a part-time to a full-time worker at McDonald’s

Ah Hung, 22, is now a full-time team leader at a McDonald’s restaurant, earning less than $4,000 a month. When he was studying at the IVE, he worked part-time at a McDonald’s.

The McDonald’s paid $17 an hour in 2006 and pays $20 an hour now.

Hung said, “The McDonald’s is a place for youngsters to kill time, to learn and to enjoy! I earn so little that I’d stay at home after work and I can only afford to go out on holidays. When I am hungry at work, I would ask my supervisor for a hamburger. So hunger is not a problem! ”

“The hardest thing for me to work in the McDonald’s is to forget ‘myself’, ” Ah Hung went on, “I strongly felt being looked-down when I swept the lobby before. But I got over this uneasy feeling before long. The McDonald’s gives me a sense of family. We have parties to celebrate festivals and birthdays of colleagues here. The supervisor always takes good care of us. The working hour is very flexible and I can easily find time to hang out with my friends. I have fun here despite the low pay. Nevertheless, I am looking for a better-pay job, about $8,000 a month. I need to think for my future.”

Source:
Adopted from Ming Pao, 6 Oct 2007

Guidelines on group discussion:

1. a. Explain why Ah Hung has to work for the McDonald’s even though the salary was low.

   b. There is a strong voice for introducing a law on minimum wage. Explain the possible impacts of such a law on a young worker (under 20 like Ah Hung) of the local fast-food chain. How likely would Ah Hung be benefited if there was a law on minimum wage?

2. Examine the details of different measures stated in Activity 2 and suggest another possible measure that can help a youth like Ah Hung. Explain your suggestion.
Activity 4: Pair discussion and individual written reports on government policies on equalising income

A. Objectives:

• To relate government policies to equalisation of income distribution.
• After the activity, students will understand the directions of different government measures on equalising income distribution.

B. Time required: 10-20 minutes

C. Prerequisite knowledge: Government policies that affect income distribution.

D. Materials needed:

An extract of the Policy Address of the Chief Executive of the HKSAR.

E. Teaching plan and instructional procedures:

<table>
<thead>
<tr>
<th>Teacher Activities</th>
<th>Student Activities</th>
<th>Time (mins)</th>
<th>Target Content/ Skills</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ask students to form pairs/trios.</td>
<td>Form pairs/trios.</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Go over the objectives and working steps.</td>
<td>Listen to instructions.</td>
<td>2</td>
<td>Select suitable measures according to the policy types.</td>
<td></td>
</tr>
<tr>
<td>3. Encourage students to discuss.</td>
<td>Read the information and discuss.</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Supervise writing up of responses.*</td>
<td>Each to write up responses either in class or at home.</td>
<td>8</td>
<td>Communicate and present clearly and critically.</td>
<td></td>
</tr>
<tr>
<td>5. Collect reports from students.*</td>
<td>Submit reports.</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*This can be a home assignment, and omit these parts in such case.

• This activity helps students in written assignment.
F. Teaching Materials:

Extract of the policy address and activity guide
Study the following extract of the Policy Address of the Chief Executive in January 2005.

“For some low-income families, their circumstances have worsened over the past few years. They require the community’s care and assistance,” Mr. Tung said. “We will take steps to provide more direct assistance and support for those in needs.”

He said the Government’s policy vision was to first promote economic growth and create employment opportunities. Then individuals could be provided with an opportunity to give full play to their potential, enhance their abilities and free themselves from poverty.

Source:
An extract from the Policy Address of Mr. Tung (The Chief Executive, HKSAR) in January 2005

1. What are the two general policies that the HKSAR Government adopts to help the low-income families? What are the aims of these policies?

   Policy of equalising income: giving money to the low-income families.
   Policy of equalising opportunities: helping families to strengthen their working ability so as to earn a higher income.

2. People holding different views support different policies. State the arguments for the different stands.

   People who support the policy of equalising income think that some of the poor are unable to earn a higher income or even unable to earn any income.
   People who support the policy of equalising opportunity think that giving money to the poor will take away their willingness to work, but giving them job opportunities will help the poor to earn more.

3. Apart from the government measures stated in Activity 2, suggest two possible measures that may help the low income families. Explain your answer.
Appendix 2

Brief introduction of the measures taken by the HKSAR Government:

<table>
<thead>
<tr>
<th>A. Medical</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- The Health Care Voucher Pilot Scheme aims at providing additional choices for elders on top of the existing public primary care services with a view to enhancing the primary care services for the elders. The Health Care Voucher Pilot Scheme would implement the “money follows patient” concept on a trial basis, enabling elders to choose their own private primary care services in their local communities that suit their needs most, thereby piloting a new model for subsidised primary care services in the future.</td>
</tr>
<tr>
<td></td>
<td>- All elders aged 70 or above who hold a Hong Kong Identity Card during the implementation period of the Health Care Voucher Pilot Scheme will be provided with five health care vouchers of $50 each annually for using services provided by healthcare providers participating in the Scheme.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Housing</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Low rent housing</td>
<td></td>
</tr>
<tr>
<td>2. Rent Allowance for Elderly Scheme</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- The scheme was launched as a pilot scheme in August 2001 to give elderly applicants an arrangement to draw cash rent allowances to lease private accommodation in lieu of public rental housing (PRH) allocation.</td>
</tr>
<tr>
<td></td>
<td>- However, the Housing Authority’s Subsidized Housing Committee agreed on 25 September 2003 to phase out the pilot RAES.</td>
</tr>
<tr>
<td></td>
<td>- Existing beneficiaries, upon expiry of the current private leases, can opt for PRH units or cash rent allowances provided that they still meet the prevailing eligibility criteria.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C. Social Welfare</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- A pilot programme on child development was announced in the 2005 policy address to establish a new mode of comprehensive and integrated service to needy children and their families. One of the components of this programme is to develop a referral and feedback system to enable pre-primary educators to identify and refer those children in need to the Maternal and Child Health Centres for assessment and timely assistance.</td>
</tr>
</tbody>
</table>
To facilitate the implementation of this referral and feedback system, the Department of Health has worked in collaboration with the Education Bureau in designing a referral form which is now available for use in the pre-primary institutions in the pilot districts.

2. Child Development Fund

Objectives of the CDF:
- The CDF seeks to provide the participating children with more personal development opportunities. Through formulating and implementing personal development plans, the CDF also seeks to encourage these children to develop an asset-building habit and to accumulate financial assets as well as non-financial assets (such as right attitudes and a proper mindset, personal resilience and capacities as well as social networks), as such assets are important for their future development.

Target Participants:
- The target participants for CDF are children aged 10-16, whose families are receiving Comprehensive Social Security Assistance or full grant under student finance schemes administered by the Student Financial Assistance Agency; or whose household income is less than 75% of the Median Monthly Domestic Household Income. Besides, children aged 14-16 should constitute no less than 70% of the participants in each pioneer project.

3. Comprehensive Social Security Assistance (CSSA)

- The CSSA Scheme provides a safety net for those who cannot support themselves financially. It is designed to bring their income up to a prescribed level to meet their basic needs.
4. **Old Age Allowance (OAA)**


   **(1) Normal Old Age Allowance**
   He/she is aged between 65 and 69 and is having an income and assets below the prescribed limits (information on the levels of resources limits is obtainable from any social security field unit of the Social Welfare Department).

   **(2) Higher Old Age Allowance**
   He/she is aged 70 or above.

---

D. **Education**

<table>
<thead>
<tr>
<th>1. Age 3-5</th>
<th>Pre-primary Education Voucher Scheme (PEVS)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(學前教育券計劃)</td>
</tr>
<tr>
<td></td>
<td>- The PEVS will be in operation from the 2007/08 school year to provide direct fee subsidy for parents to meet towards school fees for pre-primary education of their children aged above two years and eight months, on the basis of the following principles:</td>
</tr>
<tr>
<td></td>
<td>(a) only local NPM KGs or relevant classes in local NPM KG-cum-child care centres are eligible to redeem the voucher under the PEVS;</td>
</tr>
<tr>
<td></td>
<td>(b) the voucher would only be redeemed by KGs charging a school fee not exceeding HK$24,000 per student per annum (pspa) for a half-day place and not exceeding HK$48,000 pspa for a whole-day place;</td>
</tr>
<tr>
<td></td>
<td>(c) the KGs should, at the same time, meet all stipulated disclosure and transparency requirements;</td>
</tr>
<tr>
<td></td>
<td>(d) all KGs are subject to a quality assurance mechanism so that starting from the 2012/13 school year only KGs meeting prescribed standards may redeem the voucher; and</td>
</tr>
<tr>
<td></td>
<td>(e) all KGs should enjoy full discretion in determining teacher salaries, subject to market forces.</td>
</tr>
</tbody>
</table>
### 2. Age 6-14

<table>
<thead>
<tr>
<th>1. <strong>Student Travel Subsidy Scheme</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- This Scheme is to provide travel subsidy to needy students receiving formal primary or secondary education or attending a full-time day course up to first degree level in an acceptable institution. The student should reside beyond 10 minutes walking distance from school and has to travel to school by public transport.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. <strong>School-based After-school Learning and Support Programmes</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- The focus of the Programmes is to provide more assistance and opportunities to the disadvantaged students to improve their learning effectiveness, broaden their learning experiences outside the classroom and raise their understanding of the community and sense of belonging.</td>
</tr>
</tbody>
</table>

**Target Students**

(i) The target students are P1 to S7 students in receipt of the Comprehensive Social Security Assistance (CSSA) or full grant under the Student Financial Assistance Schemes (SFAS).

(ii) Schools are also given the discretion to offer not more than 10% of the places for other disadvantaged students who are not receiving CSSA/SFAS full grant.

### 3. Age 18-65

<table>
<thead>
<tr>
<th>1. <strong>Continuing Education Fund</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- The Continuing Education Fund (CEF) subsidises adults with learning aspirations to pursue continuing education and training courses. Eligible applicants will be reimbursed 80% of their fees, subject to a maximum sum of HK$10,000 (whichever is the less), on successful completion of a reimbursable course.</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>E. Labour Services</th>
<th>1. Age 15-24</th>
<th>2. Age 24-60</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Youth Pre-employment Training Programme</td>
<td>1. Training and retraining by Employees Retraining Board</td>
</tr>
<tr>
<td></td>
<td>- The Programme aims to enhance the employability and competitiveness of young school leavers aged between 15 and 19 by providing a comprehensive range of employment-related training.</td>
<td>- The main function of the ERB is to provide training to eligible workers to assist them to take on new or enhanced skills so that they can adjust to changes in the economic environment, and have their employability enhanced.</td>
</tr>
<tr>
<td></td>
<td>2. Youth Work Experience and Training Scheme</td>
<td>2. Work Trial Scheme</td>
</tr>
<tr>
<td></td>
<td>- The Scheme provides on-the-job training for young people aged 15-24 with below-degree educational attainment. It enhances their work skills, experience and credentials to brighten up their employment prospects.</td>
<td>- To enhance the employability of job seekers who have difficulties in finding jobs (e.g. those who wish to change fields) through one-month work trial.</td>
</tr>
<tr>
<td></td>
<td>3. Employment programme for the middle-aged</td>
<td>3. Employment programme for the middle-aged</td>
</tr>
<tr>
<td></td>
<td>- The Labour Department has launched the “Employment Programme for the Middle-aged”. It is geared to assisting the middle-aged job seekers in securing sustainable employment through targeted employment assistance and on-the-job training.</td>
<td></td>
</tr>
</tbody>
</table>
4. Transport Support Scheme (pilot)
- The scheme encourages eligible job-seekers and low-income employees living in four remote districts, viz. Islands, North, Tuen Mun and Yuen Long districts to find jobs and work across districts.

5. Social Enterprises by Community Investment and Inclusion Fund
- To promote community participation, mutual assistance, support and social inclusion provided through strengthened community networks in the community. This will in turn help reinforce the sense of belonging in the community, enhance the social networks of individuals and families, broaden the support base available to assist them to resolve their problems and address common concerns. These community networks, strengthened relations, sense of belonging, and willingness to provide mutual aid form the foundation of social capital; and to encourage and facilitate cooperation between organisations of different nature (such as non-governmental organisations and the private sector), as well as cross-sectoral collaboration (such as that between welfare agencies and education organisations), in social networking and community support projects.

6. Employment services like information services and assistance by the Labour Department

7. District Partnership Programme run by District Office
- The Programme seeks to promote sustainable poverty prevention and alleviation efforts at the district level that help enhance self-reliance, targeting socially disadvantaged groups. Instead of providing welfare or short-term relief, the Programme aims at increasing the skills and capacities of the employable and providing opportunities for the disadvantaged to upgrade themselves and to be effectively integrated into community.
| 3. Cleaners, security guards | 1. **Wage Protection Movement**  
- On 11 October 2006, Mr Donald Tsang Yam-kuen, the Chief Executive of the HKSAR, announced in his Policy Address that the Government would join hands with the business community and labour sector to launch the Wage Protection Movement (WPM). This is to protect the wage level of cleaning workers and security guards through voluntary and non-legislative means. |
Unit 5: Disincentive Effects of Taxes and Transfers

Objectives:

Students will be able to:
1. distinguish between gross income and disposable income;
2. explain how taxes and transfers affect people’s disposable income;
3. explain the effect of taxes on working incentive;
4. explain the effect of transfers on working incentive.

Prerequisite knowledge:

1. Sources of income.
2. Meaning of tax and transfer.

Time allocation:

80 minutes

Learning Activities:

Two learning activities
Activity 1: To examine the effect of tax on working incentive

A. Objectives:
After the activity, students will understand the possible effects of tax on working incentive.

B. Time required: 40 minutes

C. Prerequisite knowledge: Sources of income and examples of taxes.

D. Materials needed:
A concept map about the post-tax post-social transfer income distribution (TM1), and a worksheet with questions.

E. Teaching plan and instructional procedures:

<table>
<thead>
<tr>
<th>Teacher Activities</th>
<th>Student Activities</th>
<th>Time (mins)</th>
<th>Target Content/ Skills</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ask students “Hong Kong Government spends a lot of money every year. Do you know where the money comes from?” (taxation)</td>
<td>1. Answer the questions.</td>
<td>15</td>
<td>Relationship between taxes, transfers, gross income and disposable income.</td>
<td>TM1</td>
</tr>
<tr>
<td></td>
<td>2. Listen to teacher’s presentation.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Summarise students’ answers and group them into different categories. One of them should be taxation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Remind students that for the unemployed or low-income group, whose living standard falls below certain standard, may apply for subsidy from the government. Introduce the concept of transfers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. Introduce the concepts of gross income, disposable income, taxation and transfers using the concept map attached. (TM1)

5. Arrange students to work on worksheet 1, or worksheet 2, in pairs and supervise them.

6. Invite one representative of every few pairs to report the answer.

7. Summarise students’ answers and point out that taxes may reduce the working incentive. Give assignment.

| 3. Form pairs and use 10 mins to discuss and write down answers in the worksheet. |
| 25 | Cooperate; understand the effects of taxes on working incentive. |
| Teacher may adapt worksheet 1 according to the abilities of students. |
F. Teaching Materials

Teaching Material 1 (TM1)

**Concepts of Original Household Income and Post-tax Post-social Transfer Household Income**

![Diagram showing the relationship between Original Household Income, Post-tax Household Income, Education, Housing and Medical Benefits, Taxation, and Post-tax Post-social Transfer Household Income.]

Source: Hong Kong Census and Statistics Department, 2006 Population By-census Thematic Report: Household Income Distribution in Hong Kong
G. Worksheets:

Worksheet 1: The effects of the changes of tax allowance and tax rate on working incentive

Suppose a country changes its income tax structure as follows:

<table>
<thead>
<tr>
<th>Old tax system</th>
<th>New tax system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax allowance*</td>
<td>$100,000</td>
</tr>
<tr>
<td>Taxable Income#</td>
<td>Tax rate</td>
</tr>
<tr>
<td>1st $100,000</td>
<td>5%</td>
</tr>
<tr>
<td>2nd $100,000</td>
<td>10%</td>
</tr>
<tr>
<td>Remainder</td>
<td>15%</td>
</tr>
<tr>
<td>Tax allowance*</td>
<td>$150,000</td>
</tr>
<tr>
<td>Taxable Income#</td>
<td>Tax rate</td>
</tr>
<tr>
<td>1st $100,000</td>
<td>10%</td>
</tr>
<tr>
<td>2nd $100,000</td>
<td>25%</td>
</tr>
<tr>
<td>Remainder</td>
<td>45%</td>
</tr>
</tbody>
</table>

* Tax allowance is part of income that is not subject to tax.
# Taxable income = Gross income – Tax allowance

(Teacher may change the tax rates to fit the needs of teaching)

Consider the following three persons (you may interpret A as a low-income worker, B as a middle-class member and C as a millionaire) and show the effects of the changes in the tax system on the disposable income by completing the following tables. How would their working incentive be affected?

Under the old tax system

<table>
<thead>
<tr>
<th>Person</th>
<th>Gross income</th>
<th>Taxable income</th>
<th>Tax payment</th>
<th>Disposable income</th>
<th>Disposable income / Gross Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$120,000</td>
<td>$20,000</td>
<td>$1,000</td>
<td>$119,000</td>
<td>99.2%</td>
</tr>
<tr>
<td>B</td>
<td>$300,000</td>
<td>$200,000</td>
<td>$15,000</td>
<td>$285,000</td>
<td>95%</td>
</tr>
<tr>
<td>C</td>
<td>$1,000,000</td>
<td>$900,000</td>
<td>$120,000</td>
<td>$880,000</td>
<td>88%</td>
</tr>
</tbody>
</table>

Under the new tax system

<table>
<thead>
<tr>
<th>Person</th>
<th>Gross income</th>
<th>Taxable income</th>
<th>Tax payment</th>
<th>Disposable income</th>
<th>Disposable income / Gross Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$120,000</td>
<td>0</td>
<td>0</td>
<td>$120,000</td>
<td>100%</td>
</tr>
<tr>
<td>B</td>
<td>$300,000</td>
<td>$150,000</td>
<td>$22,500</td>
<td>$277,500</td>
<td>92.5%</td>
</tr>
<tr>
<td>C</td>
<td>$1,000,000</td>
<td>$850,000</td>
<td>$327,500</td>
<td>$672,500</td>
<td>67.35%</td>
</tr>
</tbody>
</table>
Questions

Q.1 If we assume that the three individuals have no change in income under the new tax system.
   a. Who may gain under the new tax system? Why?
      Person A, because his/her disposable income increases.
   b. Who may lose under the new tax system? Why?
      Persons B and C, because they have less disposable income.

Q.2 However, it is not realistic to assume that their earnings remain unchanged when the tax system changes, because people will respond to tax incentive or disincentive. Based on the above data,
   a. Who is/are more willing to work under the new system? Explain your answer.
      Person A.
   b. Who is/are less willing to work under the new system? Explain your answer.
      Person C.

Q.3 What conclusion(s) can be drawn from the above questions?
   (Hints: what factors will affect the working incentive in response to a rise in (marginal) tax rate?)
   (Assume no income effect.) Income tax (or direct tax) has negative effect on people’s working incentive. The case of Person A shows that people are more willing to work if they are required to pay less tax. The case of Person C shows that extremely high tax rate makes people have weaker incentive to work because his/her disposable income decreases significantly under the new system.
Worksheet 2: The effects of the change of tax rate on working incentive

(This is an alternative exercise which focuses on the change of tax rate on working incentive excluding the effect of the change of tax allowance on working incentive.)

Suppose a country changes its income tax structure as follows:

<table>
<thead>
<tr>
<th>Old tax system</th>
<th>New tax system</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td><strong>Taxable Income</strong>#</td>
<td>Tax rate</td>
</tr>
<tr>
<td>1st $100,000</td>
<td>5%</td>
</tr>
<tr>
<td>2nd $100,000</td>
<td>10%</td>
</tr>
<tr>
<td>Remainder</td>
<td>15%</td>
</tr>
</tbody>
</table>

* Tax allowance is part of income that is not subject to tax.
# Taxable income = Gross income – Tax allowance
*(Teacher may change the tax rates to fit the needs of teaching)*

Consider the following three persons (you may interpret A as a low-income worker, B as a middle-class member and C as a millionaire) and show the effects of the changes in the tax system on the disposable income by completing the following tables. How would their working incentive be affected?

### Under the old tax system

<table>
<thead>
<tr>
<th>Person</th>
<th>Gross income</th>
<th>Taxable income</th>
<th>Tax payment</th>
<th>Disposable income</th>
<th>Disposable income / Gross Income</th>
</tr>
</thead>
<tbody>
<tr>
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<td>$20,000</td>
<td>$1,000</td>
<td>$119,000</td>
<td>99.2%</td>
</tr>
<tr>
<td>B</td>
<td>$300,000</td>
<td>$200,000</td>
<td>$15,000</td>
<td>$285,000</td>
<td>95%</td>
</tr>
<tr>
<td>C</td>
<td>$1,000,000</td>
<td>$900,000</td>
<td>$120,000</td>
<td>$880,000</td>
<td>88%</td>
</tr>
</tbody>
</table>

### Under the new tax system

<table>
<thead>
<tr>
<th>Person</th>
<th>Gross income</th>
<th>Taxable income</th>
<th>Tax payment</th>
<th>Disposable income</th>
<th>Disposable income / Gross Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$120,000</td>
<td>$20,000</td>
<td>$2,000</td>
<td>$118,000</td>
<td>98.3%</td>
</tr>
<tr>
<td>B</td>
<td>$300,000</td>
<td>$200,000</td>
<td>$35,000</td>
<td>$265,000</td>
<td>83.3%</td>
</tr>
<tr>
<td>C</td>
<td>$1,000,000</td>
<td>$900,000</td>
<td>$350,000</td>
<td>$650,000</td>
<td>65%</td>
</tr>
</tbody>
</table>
Questions

Q.1 If we assume that the three individuals have no change in income under the new tax system. Who is affected most under the new system? Why?

C is affected most. Because he has the greatest drop in the ratio of disposable income to gross income (represented by percentage).

Q.2 However, it is not realistic to assume that their earnings remain unchanged when the tax system changes, because people will respond to tax incentive or disincentive. Based on the above data,

Who is/are less willing to work under the new system? Explain your answer.

Person C.

Q.3 What conclusion(s) can be drawn from the above questions?

(Hints: what factors will affect the working incentive in response to a rise in (marginal) tax rate?)

(Assume no income effect.) Income tax (or direct tax) has negative effect on people’s working incentive. The more significant of the percentage drop of the disposable income, the weaker working incentive will the people have. Therefore, an extremely high tax rate makes people have weaker incentive to work because his/her disposable income decreases significantly under the new system.
Activity 2: A mini-debate on the thesis:
“Transfer will discourage people to work” or
“Transfer would help the poor more effectively”
(Teacher should choose based on the needs and abilities of students)

A. Objectives:
• After the activity, students will be able to:
  1. understand the effect of transfer payment on working incentive;
  2. review critically the effect of transfer payment on working incentive.

B. Time required: 40 minutes

C. Materials needed: Two news articles for students

D. Teaching plan and instructional procedures:
• Refer to the guidelines on mini-debate.
• It is necessary to ask students to collect and summarise information before the activity. After the debate, teacher should assign Assignment 1 to students.
E. Teaching materials:

Students may read the following articles to prepare for the debate.

*(Teacher may give an extract of the article, depending on the needs and abilities of students)*

**Article 1:**

**To Fight Poverty is to Get People to Work**

The report published by the Commission on Poverty tells us that more and more people without handicap are getting social welfare and stay on welfare for a longer period. This means the Comprehensive Social Security Assistance (CSSA) makes more lazy people. The Government must come up with some ways to reduce the expenditure and abuse of the CSSA.

The report also reveals that many of those on welfare are young people (704 persons in 2005) and 30% of them have never worked. They are mostly less educated and remain jobless after the local industry moved to the mainland. They rely on welfare for an average period of five years. But if they want to work, there are actually opportunities in other fields.

A restaurant owner said he once hired three persons on $30 an hour to make deliveries. The employees, aged between 20 and 50, quit after a short time though the job would pay $4,800 if one works for 8 hours a day and 20 days a month. The owner pointed out that they all relied on welfare as the main source of income. They came to work for some extra money and asked the owner not to report them to the Social Welfare Department (SWD). Otherwise, their welfare amount would be cut.

Therefore, the root of the problem lies at the lack of time limit for receiving welfare. Once the application for CSSA is approved, SWD still has to pay the recipients even if they refuse to work. Another problem is that CSSA provides more money than jobs. Many recipients thus do not want to work and have become long-term dependent on welfare.

If we want to get rid of the ill effects of CSSA, we must set a maximum period for receiving welfare. Those who are young and healthy should get a job instead of CSSA. If they earn less than the CSSA, the Government should then give them some subsidies, such as ‘rent allowance’.

Source: Adopted from Ming Pao, 16 June 2007
Tax Reform and Wage Supplement -- Singapore Case for Hong Kong

The Singapore government has launched measures to attract foreign investment, to maintain a rapid economic growth, to help low-education, low-skilled workers and to stabilise the country. As Hong Kong and Singapore share similar economic structure and both face the impact of globalisation and widening rich-poor gap, Singapore’s new policies may provide a good reference for Hong Kong.

In this year’s budget, Singapore is going to lower business tax from 20% to 18%, making it more attractive to foreign investors. It will reduce the revenue by 800 million. The budget also proposes to increase commodity and service tax (CST) from 5% to 7%, to make up for the loss of revenue. At the same time, there will be exemption and assistance to help the poor for the next five years. The rise in CST will bring 750 million in the first year and 1500 million each year afterwards. The Singapore government will use the additional money to improve medical services, to enhance education and to provide wage supplement for the low-income groups.

The ‘wage supplement’ aims to improve the lives of the low-income groups while not to take away their willingness to work. No more than 100 dollars a month will be distributed as wage supplement to those aged 45 or above and earning less than 1,000 dollars a month, and to the self-employed. A small portion of the supplement will be cash and the rest will be deposited into the recipients’ mandatory pension accounts and medical saving accounts. Employees and the self-employed aged between 35 and 45 making less than 1,500 dollars a month will receive 3/4 of the wage supplement. The government estimates that this measure will benefit 438,000 low-income workers and cost 400 million annually.

Why does Singapore cut profit tax and increase CST? It’s because Singapore knows that this is the way to attract international capital. More importantly, Singapore has introduced CST several years ago and is fully prepared to do so.

Why does Singapore introduce wage supplement? Singapore finds out that the lower classes have not been benefited by economic growth. Some have even been seriously affected by inflation and pay freeze. The Government has done all it can to help them, but to no good results. Meanwhile, the gap between the rich and the poor keeps widening. Hence, the government goes for ‘workfare’ to help the low-wage earners to stay in the workforce, not for a ‘welfare’ making people dependent and lazy.

Source: Adopted from Ming Pao, 18 February 2007
F. Assignment:

Assignment 1

After the debate, you have heard the arguments for and against the statement of “Transfers will discourage people to work”.

1. What are the arguments of both sides?
2. What is your view? Justify your view. (for more able students)

Assignment 2

1. In some countries, the tax rates for high-income groups are around 40-50%. It is common for the public organisations, such as schools and hospitals, to have difficulty recruiting senior management staff. Explain this phenomenon with some economic concepts.

   Some middle-level managers do not want to be promoted to senior management posts as the post-tax wages/disposable income may only increase slightly in spite of the pay rise. Therefore, the rise in wages after tax may not compensate the risk and work pressure of being a senior manager.

2. In some countries, the USA for example, the recipients of unemployment benefits need to show records of seeking jobs. Moreover, these governments set the maximum period of provision of unemployment benefits. Explain the possible economic rationales behind these policies.

   As the transfer/unemployment subsidy is quite a considerable amount, earnings from work do not increase the income of the recipients substantially. Therefore, they do not have much incentive to look for jobs and the governments need to monitor them.
Unit 6: Trade-off between Efficiency and Equity

Objectives:

Students will be able to:

1. identify the issue of efficiency and equity on the use of a scarce resource in Hong Kong context;
2. analyse the effects of a decision on the use of scarce resources on efficiency and equity;
3. understand the trade-off between efficiency and equity in a public decision;
4. understand the effects of a public decision on the use of scarce resources on different stakeholders;
5. evaluate the decision on the use of public resources in respect of efficiency and equity;
6. review critically the trade-off relationship between efficiency and equity;
7. understand and appreciate the needs and expectations of different stakeholders on the issue of income inequality.

Time allocated:

110-140 minutes

Learning activities:

Four learning activities

Remark:

For activities 3 and 4, due to the imperfect information of full cost and benefit, it may be difficult to reach a definite conclusion whether the case can achieve efficiency or not. Students should be reminded that this is a usual difficulty in empirical studies. Given this limitation, students should be encouraged to (i) analyse the cases on the basis of the available information, (ii) think of the qualifying conditions upon which their conclusions are found, and (iii) think of the effects of different measures or policies on different stakeholders in the society.
Activity 1: Analysing the use of the former North Point Estate

A. Objectives:
   • To learn the trade-off between efficiency and equity from analysing the use of the former North Point Estate.
   • After the activity, students will be able to:
     1. analyse the effects of, and hence evaluate, a decision on the use of public resources on efficiency and equity;
     2. examine the trade-off between efficiency and equity in a public decision;

B. Time required: 50 minutes

C. Prerequisite knowledge:
   The meaning of efficiency and equity; services and operation of public housing in Hong Kong.

D. Materials needed:
   Information sheet on the case of the former North Point Estate.
### Teaching plan and instructional procedures:

<table>
<thead>
<tr>
<th>Teacher Activities</th>
<th>Student Activities</th>
<th>Time (mins)</th>
<th>Target Content/ Skills</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Supervise reading of the information sheet.</td>
<td>Read the information sheet.</td>
<td>8</td>
<td>Reading skills and the ability to identify the issue of efficiency and equity on the use of public resources.</td>
<td>• *Applicants of public rental housing, well-off tenants of existing public rental housing, local property developers and economists</td>
</tr>
<tr>
<td>2. Assign different roles* to the students.</td>
<td>Listen to instructions.</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Ask each role to form two groups of four or five and discuss the questions stated in part F.</td>
<td>Form groups and discuss.</td>
<td>20</td>
<td>Analyse the effects of a decision on efficiency and equity.</td>
<td>• First base group, then expert group, then base group</td>
</tr>
<tr>
<td>4. Select randomly one representative from each group to report and put their points on the blackboard.</td>
<td>Revise views in the light of the reporting of other groups.</td>
<td>10</td>
<td></td>
<td>• It is more effective to have two expert groups on each role, i.e. eight expert groups.</td>
</tr>
<tr>
<td>5. Discuss with the class whether the points presented are related to efficiency or equity. Then lead them to think about the trade-off between efficiency and equity.</td>
<td>Revise views in the light of the reporting of other groups and teacher’s comments.</td>
<td>10</td>
<td>• Understand the trade-off between efficiency and equity. • Evaluate the decision on the use of public resources in respect of efficiency and equity.</td>
<td></td>
</tr>
</tbody>
</table>
F. Activities:

Students in different roles form groups and discuss among themselves the following issues:

(i) propose a use of the site that you think the best. State the criteria by which you evaluate your proposal;

(ii) suggest a (or some) stakeholder(s) in society that will be worse off under your proposal;

(iii) do you think that your proposal is an efficient way of using scarce resource? If yes, in what sense it is efficient? If not, what makes you think that your proposal is more preferable to the “efficient” way of using the site?

G. Teaching materials:

Information sheet on the case of the former North Point Estate (2007 Sept)

**Background information of North Point Estate:**

1. The former North Point Estate locates at the waterfront of North Point on Hong Kong Island. It was a large low-rent public housing estate built in 1957. The housing estate was demolished in 2000 and made available an area of about 300,000 sqft. The site has been vacant since 2002.

2. The site was originally planned to be redeveloped together with the government land nearby to produce subsidised home ownership flats and private residential flats. However, the plan was suspended in 2002 because the Government decided to stop building subsidised home ownership flats.

**Background information of the Housing Authority (HA):**

1. The Housing Authority (HA) got $34 billion from the sale of the retail and car-parking facilities of the public estates in 2005, and held $57 billion in 2006.

2. The Government has promised to provide enough free land to the HA to build public rental housing for the needy. The average waiting time for public rental housing is about three years and there are 110,000 applicants on the waiting list.

3. According to the private surveyor’s evaluation, the current market value of the site ranges from HK$14.5 billion (HK$6,800 per sqft) to HK$27 billion (HK$12,600 per sqft).

Additional information for teacher’s consideration of different roles:

**Role A:**

The applicants of public rental housing would like to live in urban districts at low rent. If the former North Point Estate is developed into public rental flats or home ownership flats, they would be more likely to rent or buy the flats there.

**Role B:**

The well-off tenants of existing public rental housing would like to buy a flat at a rate lower than the market price in urban district or to live in new public rental housing in urban district even at a higher rent. They would apply to move there or to buy the flats by returning the current flats to HA.

**Role C:**

The local property developer wants to have the site for private estate. He would prefer to buy the site at public auction and make a big profit because there is a high demand for private flats in the area.

**Role D:**

The academic may either consider using the scarce resources more efficiently, i.e. to auction the land for private property developers. Or he may consider building public flats for sale so that existing tenants of public flats would improve their living conditions and feel more satisfied with the government. His consideration is shaped by his academic background or philosophy.
**Activity 2: Debate on the proposal for Home Ownership Scheme (HOS)**

**A. Objectives:**
- To evaluate the effects of a decision on using public scarce resources on efficiency and equalising income distribution.
- After the activity, students will be able to:
  1. analyse the effects of building HOS on different stakeholders;
  2. evaluate critically different proposals of providing public housing in regard to efficiency and equalising income distribution

**B. Time required:**
40-50 minutes (depending on the number of rounds of the debate)

**C. Prerequisite knowledge:**
1. Meaning of efficiency and equalising income distribution.
2. Services and operation of public housing in Hong Kong.

**D. Materials needed:** Information sheet on HOS for students

**E. Teaching plan and instructional procedures:**

The thesis of the debate: **“Proposal 1 is more advantageous than proposal 2”**

<table>
<thead>
<tr>
<th>Teacher Activities</th>
<th>Student Activities</th>
<th>Time (mins)</th>
<th>Target Content/ Skills</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ask students to form four-person base groups and assign positions. #</td>
<td>Form pairs/ trios (base groups) and take a position.</td>
<td>2</td>
<td>Collaboration skills.</td>
<td>• # Some groups may consist of a combination of pairs/trios.</td>
</tr>
<tr>
<td>2. Go over the objectives and steps of debate. ##</td>
<td>Listen to instructions.</td>
<td>3</td>
<td></td>
<td>• ## Teacher may decide the length/depth of debate and time according to the guidelines on mini-debate.</td>
</tr>
<tr>
<td>3. Supervise reading and forming responses.</td>
<td>Read and formulate responses.</td>
<td>8</td>
<td>Analyse the benefits of HOS to various stakeholders.</td>
<td></td>
</tr>
<tr>
<td>4. Oversee students sharing views in expert groups according to the guidelines.</td>
<td>Share views in expert groups according to the position and guidelines.</td>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5. Supervise the first round of debate within the base groups.

Debate within base groups following the mini-debate guidelines.

Evaluate critically the effects of different proposals. **###**
Optional, depending on the abilities and involvement of students.

6. Supervise the second round of debate between two base groups. ###

Review and formulate new points for debate. 10

7. Collect reports.

Submit reports on the choice of proposal with reasons. 5 Writing skills.

**F. Teaching materials:**

“Home Ownership Scheme (HOS): let it rest forever or revive it?”

**Source I**

**Background information on HOS**

1. The Hong Kong Government launched HOS in 1976. Under the scheme, flats were sold to those (middle class) whose income exceeded the criterion for public rental flats but could not afford private flats.

2. The scheme has been implemented by the Housing Authority (HA). The buyers were those living in public rental flats or whose income or asset value was lower than the prescribed level. The selling price of a HOS flat was as low as 60%-70% of the market price.

3. In 2002, the Government announced the decision to stop building HOS flats as it wanted to withdraw totally from private flats market. At that time there were about 56% families living in self-owned flats.
The Choices of the Planning Committee of the Housing Authority (HA)

In a review and brainstorming session in October 2007, the planning committee of the HA gathered the following data:

1. 90% of the available sites for building public flats are in urban districts.

2. A tenant of public housing flat who buys a HOS flat is required to return the rental unit to the HA for relocation. 5% of the public housing tenants (30,000 households) want to buy self-owned flats. In a public demonstration, a strong demand was made to the HA to build and sell new HOS flats to tenants of public housing.

3. HA has 50 billion cash which can support the daily operation and building plans for the next 10 years.

4. In the past, selling HOS flats provided the major recurrent income to HA.

5. The number of well-off households paying double rent grew 100% in three years.

6. The waiting list for public rental housing rose from 91,000 in 2004 to 108,000 in 2007. The government agreed to provide enough land to HA to build public rental housing so that the average waiting time for a qualified applicant will be three years. (The current waiting time is less than three years.)

7. The prices of private flats (400-700 sqft) ranged from $3,200 in the New Territories to $5,900 per sqft on Hong Kong Island. The average price of private flats was about 60% of that in 1997. A private flat (400-700 sqft) in a new town usually costs 1.2 to 2 million (such as Tseung Kwan O and Tin Shui Wai).

8. 80% of public housing tenants are paying less than $1,800 a month.

9. The building cost of a HOS flat is double that of a public rental flat.

Sources:
2. Ming Pao, 15 June, 5 October 2007
The planning committee made two proposals to achieve the following two objectives:
A. Stable source of income for building plan and daily operation.
B. Building enough public rental flats to maintain the average waiting time at three years.

**Proposal 1**
Build a small number of HOS flats (3,000-5,000) every year in urban districts. The majority (80%) of new HOS flats are to be sold to the existing public housing tenants and the remaining to those who cannot afford private flats and are not eligible for public rental housing.

This proposal can achieve the following objectives:
a. Sale of HOS flats provides stable source of income.
b. Old public rental flats are released for waiting applicants so that the average waiting time can be kept at three years.

**Proposal 2**
Return the sites in urban districts to the Government and put them up to auction for the property developers to build private flats. The Government then gives part of the auction revenue to the HA and allocates enough sites for building rental flats for potential applicants. Well-off tenants of public flats are required to pay a higher rent or choose to buy private flats with low-interest loans from the HA.

This proposal can achieve the following objectives:
a. The Government gets stable income from the sale of sites.
b. Sufficient public rental flats can be built with full support of the Government.
G. Guideline on discussion in expert groups:

Evaluate the two proposals in regard to the efficient use of scarce sites in urban districts and equalising income distribution.

1. Who will gain and who will lose in the proposals?

2. Which proposal will lead to a more efficient use of scarce sites? In what way it is more efficient?

3. Which proposal will lead to a more equitable income distribution? In what way it is more equitable?

4. If your objective is to help the low-income group to live in public rental flats, which proposal would you opt for? Support your decision with economic reasoning.

5. If your objective is to help the well-off tenants of public flats, which proposal would you opt for? Support your decision with economic reasoning.
Activity 3: Pair discussion and individual written report on Health Vouchers Scheme vs Half Medical Charges

A. Objectives:
• To compare the effects of the selected medical schemes on efficiency and equity.
• After the activity, students will be able to compare the effects of the selected medical schemes on the efficiency of using scarce resources and on equalising income distribution.

B. Time required: 10-20 minutes

C. Prerequisite knowledge:
Basic facts about provision of medical services in Hong Kong.

D. Materials needed:
Information sheet on Health Vouchers Scheme Vs Half Medical Charges for the elderly

E. Teaching plan and instructional procedures:

<table>
<thead>
<tr>
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<th>Target Content/ Skills</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ask students to form pairs/trios.</td>
<td>Form pairs/trios.</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Go over the objectives and working steps.</td>
<td>Listen to instructions.</td>
<td>2</td>
<td>Compare the effects of the selected medical schemes on efficiency and equity.</td>
<td></td>
</tr>
<tr>
<td>3. Encourage students to discuss.</td>
<td>Read the information and discuss.</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Supervise writing up of responses.*</td>
<td>Each to write up responses either in class or at home.</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Collect reports from students.*</td>
<td>Submit reports.</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*This can be a home assignment, in which case these two parts can be omitted.

This activity helps students in written assignment.
F. Teaching Material:

**Health Vouchers Scheme vs Half Medical Charges**

**Source I**
The Chief Executive proposed to launch a three-year trial scheme of Health Care Vouchers Scheme for the Elderly in his Policy Address in October 2007.

The Scheme has the following features:

a. All persons aged 70 or above will be given annually five health care vouchers worth $50 each.
b. The vouchers can be used for western and Chinese private practitioners, dental services, preventive services (e.g. medical examination and vaccination) and therapeutic services.
c. Users can use the vouchers by showing the identity cards. Medical practitioners will deduct the number of voucher used through a central internet system. Users cannot get the change for cash and need to pay the outstanding balance.
d. Users can use any number of vouchers in one service, or leave them for next year. But they cannot use the vouchers in advance.

**Source II**
Charges for different medical services:

a. Charge of public clinic is $45.
b. Charge of private (western) clinic ranges from $180 to $250.
c. Charge of private (Chinese medicine) clinic ranges from $15 to $100.

**Source III**
Reduction of medical charges for the elderly at public hospitals:
Hundreds of the elderly marched to the Government Offices and asked for a cut of medical charges for the elderly at public hospitals with a slogan: “Charges by half – Happiness doubled for Elderly” (Suppose they ask for a 50% cut of medical charges at public clinics.)


The task:
Suppose the Hong Kong Government would spend HK$5 million on either one of the schemes (i.e. Health Vouchers Scheme and Half Medical Charges). Compare these two schemes in regard to the efficient use of scarce medical resources and equalising income distribution.
Activity 4: Review of the trade-off: the Case of Microloan
(For more able students)

A. Objectives:
• To examine the trade-off between efficiency and equity.
• After the activity, students will be able to aware that efficiency and equity may not be contradictory in some cases.

B. Time required: 10-20 minutes

C. Prerequisite knowledge:
Meaning of efficiency and equity.

D. Materials needed:
Information sheet on Microloan Foundation for students

E. Teaching plan and instructional procedures:

<table>
<thead>
<tr>
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<th>Time (mins)</th>
<th>Target Content/ Skills</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1. Ask students to form pairs/trios.</td>
<td>Form pairs/trios.</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Go over the objectives and working steps.</td>
<td>Listen to instructions.</td>
<td>2</td>
<td>Consider the trade-off between efficiency and equity critically.</td>
<td></td>
</tr>
<tr>
<td>3. Encourage students to discuss.</td>
<td>Read the information and discuss.</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Supervise writing up of responses.*</td>
<td>Each to write up responses either in class or at home.</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Collect reports from students.*</td>
<td>Submit reports.</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*This can be a home assignment, in which case these two parts can be omitted.

This activity helps students in written assignment.
F. Teaching material:

Information sheet on Microloan Foundation (MLF):

Big Changes with Micro Money -The Work of Microloan Foundation

Some features of the operation of MLF:

1. It provides microfinance services in Malawi (South Africa) and the Philippines. With a lot of committed volunteers, some of them are professionals, its operating costs are very low in the UK. This means a large percentage of the donations go directly to the needy.

2. It lends money (microloans of HK$234 to $2,880) to women (10-18 persons each group) to help them build sustainable businesses (farming, fishing, market trading) and provides meaningful training and ongoing mentoring support to them.

3. Loans are made on a four-month period and normally a member could receive up to four loans. Repayments of loans are made every two weeks by each group member.

4. It now has eight offices with 49 workers in Malawi and has made microloans to over 7,000 women. It made out 11,000 loans at a total value of HK$8.3 million in 2007. The interest rates range from 20% to 24% and the rate of repayment is 95%. The Foundation is self-sufficient at the moment.

5. “I feel happy and relieved that I don’t have to be worried about financial problems. I feel I have independence.” said Joice Chibwe, a MLF client.

Source: www.microloanfoundation.org.uk

Guidelines on discussion

1. Is the cost of running MLF high or low? What is the evidence?

   The explicit administration cost of MLF is low because most of the work is done by volunteers, enabling large proportion of donations to be used by borrowers and MLF to be self-sufficient. However, taking into the consideration of the implicit cost (i.e. time cost) of the “committed volunteers” who are likely to be professionals, the running cost may not be as low as it appears.
2. What is the scarce resource used in the scheme? Is it efficiently used? What is the evidence?

The scarce resource used in this scheme are the money from donation and the human resource from the volunteers. The loans have high interest rate of about 20-24% and the rate of repayment is 95%. The scheme is likely to be efficient as it is rather difficult to find investment opportunities elsewhere having such a high rate of return.

Alternative answer:
The scarce resources are natural resources and capital goods used by borrowers to produce services to earn money. The use of these resources is efficient for the rate of return is considered to be high. (The return can support an interest rate of 20-24% and 95% of repayment.)

Alternative answer
It is uncertain. Without the information about the total opportunity cost (the sum of the implicit and explicit costs) of running the scheme, it is difficult to judge whether the total benefit of the clients can cover the costs or not even though the rate of return is high (20-24%).

3. How does the income of the poor change? Explain with evidence.

The income of the poor has increased. The loan clients reported that they can sustain the living expenses without any other assistance, i.e. they have a better living/economic well being.

4. In this case, is there a trade-off between efficiency and equity? Why?

In this case, if the benefit gained by the clients of the scheme can cover the total opportunity cost of the scheme, there may be no trade-off between efficiency and equity because the scarce resource is used efficiently and the income of the poor increases at the same time, it is a win-win situation.

G. Teacher’s reference:


2. Rebecca M. Blank, 2002, Can Equity and Efficiency Complement Each Other?
   Paper prepared as the Adam Smith Lecture, European Association of Labour Economists.
Appendix

1. Guidelines on Mini-Debate

A. Objective:
To ask everyone to take side of a thesis and to consider all possible arguments or to consider the pros and cons of a proposal.

B. Steps:
1. Ask students to form groups of four or six. Each group has two pairs/trios and a few groups may have five members (see Note a).

2. Go over the objectives and the thesis briefly, then randomly assign positions to different pairs/trios.

3. Ask each pair/trio to formulate some points (two to five) for their sides within the time limit (3-4 minutes).

4. Conduct the first round of debate within each group. Every student has 1 to 1.5 minutes for presenting points and responding to challenge. After each student has presented his/her arguments, there are 15 seconds for each pair/trio to discuss how to rebut. The flow will be as follows: (assuming a group of four)
   a. first presentation of the positive side (S1): 45 seconds
   b. 15 seconds of discussion
   c. first presentation of the negative side (S2): 15 seconds for challenge, 45 seconds for presentation
   d. 15 seconds of discussion
   e. second presentation of the positive side (S3): 15 seconds for response and challenge, 45 seconds for presentation
   f. 15 seconds of discussion
   g. second presentation of the negative side (S4): 15 seconds for response and challenge, 45 seconds for presentation
   h. 15 seconds for discussion
   i. final presentation of the negative side (S1): 15 seconds for response and challenge
   j. final presentation of the positive side (S1): 15 seconds for response and challenge
5. Merge two/three groups to form two new expert groups, i.e. a group of positive side and a group of negative side. Members of the two sides discuss and establish new points for 3 to 4 minutes (see Note b).

6. Conduct second round of debate between the groups. Switch the positive sides of the two groups so that they face new opponents. The second round of debate works according to item 4 above (see Note c).

7. When the second round of debate finishes, ask students to go back to the original groups and sum up the points of both sides.

**Note:**
The following example illustrates the groupings in different stages of the mini-debate. For simplicity, we assume there are 16 students in the class.

a. The grouping of the first round of debate:

<table>
<thead>
<tr>
<th>(Group 1- 2 pairs)</th>
<th>(Group 2- 2 pairs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1 (For)</td>
<td>A2 (For)</td>
</tr>
<tr>
<td>B1 (Against)</td>
<td>B2 (Against)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(Group 3- 2 pairs)</th>
<th>(Group 4- 2 pairs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A3 (For)</td>
<td>A4 (For)</td>
</tr>
<tr>
<td>B3 (Against)</td>
<td>B4 (Against)</td>
</tr>
</tbody>
</table>

b. The grouping of the expert groups:

A1+A2+A3+A4
   (For )

B1+B2+B3+B4
   (Against)

c. The grouping of the second round of debate:

<table>
<thead>
<tr>
<th>(Group 1’- 2 pairs)</th>
<th>(Group 2’- 2 pairs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1 (For)</td>
<td>A2 (For)</td>
</tr>
<tr>
<td>B2 (Against)</td>
<td>B1 (Against)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(Group 3’- 2 pairs)</th>
<th>(Group 4’- 2 pairs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A3 (For)</td>
<td>A4 (For)</td>
</tr>
<tr>
<td>B4 (Against)</td>
<td>B3 (Against)</td>
</tr>
</tbody>
</table>
2. Guidelines on Mini-Role Play

A. Objective:
To help students to understand the views and feelings of different roles. It may also help students to solve the conflicts of different roles.

B. Steps:
1. Ask students to form groups. The number of group members should equal to the number of roles. (In case of more members than roles, two students will play one role.)

2. Assign roles to students.

3. Assign readings and/or information of different roles to students to enable them to understand the feelings, needs and views of their assigned roles.

4. If the readings and/or information are difficult, arrange expert group discussion. Each expert group has three to five students acting the same role to study or discuss the feelings, needs and views of the role. Afterwards, students go back to their original groups of different roles. (Refer to the guidelines on small group discussion for detailed arrangements.)

5. Announce the time for the role play (2-3 minutes x no. of roles) and supervise the process. During the process, each role has 1 to 2 minutes of presentation. Then other roles have time to challenge or respond.

6. When all roles have finished their presentations, give the group 4 to 5 minutes to summarise, conclude or come to a resolution.

7. Arrange for the sharing of the outcome of each group. (Refer to the guidelines on small group discussion for detailed arrangements.)
3. Guidelines on small group discussion

A. Objective:
To facilitate students to communicate effectively in a small group setting. It also enables students to participate equally and actively in order to get the most out of the high order thinking and intensive interaction.

B. Steps:
1. Brief students on the objectives and guiding questions. Then ask student to form groups. Optimal number of members is four (two pairs); a few groups may have three to six persons.

2. Present or distribute reading materials, i.e. articles, passages, information sheet, songs, pictures etc.

3. If necessary, assign reading materials to different individuals or pairs. Announce the time for reading, which should be limited to 1 to 5 minutes. Then, supervise the reading process.

4. Ask students to present their views or responses to the discussion questions.
There are three possible ways of discussion/presentation of views:

a. Roundtable: Each student takes turn to present his/her views to the group; other students may comment or ask for clarification after each presentation. There may be several rounds of presentation, depending on the number of questions.

b. Pair Sharing: Two students form a pair and are given some time, say 3 minutes, for free discussion between them. Then each pair take turn to present their views to the group. In general, there is only one round of presentation.

c. 3-Step interview: Two students form a pair and interview each other for views. When the interview is finished, each student reports to the group on the views of his/her partner. The partner may clarify or supplement.

Then each group summarises and concludes the responses.
5. The groups share their reports with the whole class. There are several ways of sharing, depending on the divergence or convergence of views.
   
   a. If the views are convergent but complex, i.e. each group has similar and long answers, randomly select one representative of every few groups (one to three groups, depending on the total number of groups and number of questions discussed).
   
   b. If the views are convergent and simple, ask each group to write their views on a large sheet of paper (A3) and pass it around from group to group.
   
   c. If the views are divergent and complex, i.e. each group has different and long answers, use the “2-stay-2-stray” method for sharing. Two members of a group stay in the group and explain to the visitors while two members visit other groups to learn and bring back new responses from other groups.
   
   d. If the views are divergent and simple, i.e. each group has different but simple answers, use poster presentation. Ask each group to write their answers on a sheet of paper (A3) and post it in the classroom. Ask all groups to tour around, read the posters and select good but different views from others.
   
6. Comment on students’ views and responses, or offer additional views or responses to students.
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