

# **The Impact of Pay-As-You-Eat on University Education in Kenya**

## **A Case Study of Egerton University, Njoro**

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# THE IMPACT OF PAY-AS-YOU-EAT ON UNIVERSITY EDUCATION IN KENYA: A CASE STUDY OF EGERTON UNIVERSITY, NJORO

**Abstract:** A new system involving direct cost-recovery from the beneficiary was introduced for the first time in public universities in Kenya in 1992. Under this system, popularly known as Pay-As-You-Eat (P.A.Y.E.), direct payment for food by the student through a cafeteria system was introduced.

This study was an attempt to establish the impact of this system on education in public universities in Kenya. The survey focussed on Egerton University as a representative of the other four state universities.

A sample of 500 students and 16 members of university staff (seven academic and nine administrative) was randomly drawn. The student sample included only those persons that were best placed to provide the required information. Members of the community both within and around the university were also sampled to include parents (ten), landlords (ten) and kiosk owners (ten).

Questionnaires, structured interviews, focus group discussions and observations were used to obtain data. Data was analysed both qualitatively and quantitatively. The results indicated that P.A.Y.E. had minimised and overshadowed any benefits of the system, on both the social life and academic standards of students. The most feasible suggestions to improve the system were identified as:

- i.) provide subsidised food rates affordable by all students in order to minimise cooking in rooms;
- ii.) disburse Higher Education Loans Board (HELB) loans to all applicants and then streamline the recovery mechanism.

## 1. INTRODUCTION

### 1.1 Background of the Study

Kenya's commitment to the implementation of Structural Adjustment Programmes (SAPs) dates back to 1975. Sessional papers number four of 1975, number one of 1986, the budget rationalisation document, the annual budget of 1996/97 and 1997/88 provide the policy framework and commitment implementing policies (World Bank 1994).

Kenya's budget rationalisation programme sought to improve the pattern of allocation of its budgetary resources. Within this programme, the government proposed to raise budgeting revenues through cost-sharing measures, as well as restructuring and restraining growth of public

expenditures and hence provide quality services. Four sectors were identified as being most suitable for cost-sharing arrangement, namely, health, education, agriculture, transport and communication.

The basis for advocating cost-sharing arose from several factors:

- limited public funds relative to the demand for development and expenditure;
- a view that certain members of society who could afford to pay for service provided by the public sector should be encouraged to do so;
- efficiency in the provision of public services would be enhanced when society paid for such services;
- certain needs and services were recurrent and had a personal attention element in them. Such needs would be better met through cost-sharing;
- allocation and reallocation of resources would be effected more efficiently where and when cost-sharing took place.

Within the education sector in Kenya, a cost-sharing system was introduced in the public universities. In this newly introduced system, the universities operate in the context of a producer/consumer relationship with the students being charged realistic market fees, and those unable to pay such fees are targeted for government assistance through loans and bursaries. The government provides Ksh. 42,000/=, (approximately USD 560) to needy students per academic year, as a means-tested loan. In turn the student pays (Ksh.16000/= (approximately USD 214) to the university as tuition (13.3% of the cost). Of this Ksh 8000/= (USD 107) comes from the loan and another Ksh 8000/= (USD 107) is paid directly by the student. Those who cannot pay are assisted through a means-tested bursary of the same amount or less (Wandiga 1997). Students are supposed to pay for food, accommodation and books through funds made available to the needy through the loan scheme. Those who can afford to pay are encouraged to do so by not being awarded a loan.

The long-term benefits of the system are:

- i) resources are generated as students pay for their college education (and therefore may value it more highly);
- ii) the university system can respond more effectively to student demand (reflecting relative earning and shortage in the labour market); and

- iii) universities are forced to compete for students (in terms of price, quality of education and subsequent marketability of skills provided). In essence, the government's policy inaugurates a demand-driven university system, which should translate into better internal efficiency and societal relevance over the previous system (Wandiga 1977).

As if in support, Blair (1997) revealed that the rationale for tuition, accommodation and catering fees was based on the following factors:

- As a result of attending a university, a student would benefit through significantly greater lifetime earnings (i.e., high private rates of return from higher education), and therefore should pay at least a reasonable proportion of the cost.
- Students often come from families with at least a degree of ability to contribute to the cost of higher education.
- If students had to pay for their education, they would value it more. There would be an incentive for them to complete the programme quickly in order to reduce cost, and they would be less likely to take action that disrupted their education or reduced the quality of the service they were receiving.

With cost-sharing at the five public universities in Kenya came another SAP measure in 1992 through the introduction of the cafeteria system known as P.A.Y.E. This system demands that students pay per meal just like in any other cafeteria. Prior to this, the university provided 'free' food. The objective was to cut down on the food budget by curbing food wastage by students at catering units. It was also hoped that through this system, discipline and a sense of responsibility would be instilled in students. This, it was felt, would go a long way in curtailing the rampant student strikes (Ochwada 1998). However, the scenario in public universities in Kenya today does not augur so well. According to Blair (1997), the assessment of need is not easy in Africa and thus there is a possibility of needy students not being catered for. In line with this view, the P.A.Y.E. system is likely to decrease access to higher education for well qualified students from poorer backgrounds since they would be unable to cater for their upkeep and meals. Accordingly, any cost-sharing system cannot be equitably implemented without effective students' support system whereby the government, the private sector and donors, together with families and communities provide needy students with financial support for their education. Although this is happening in Kenya, the support may not be adequate due to poor need assessment.

The Higher Education Loans Board (HELB) that disburses and administers collection of student loans has operated under frequent political interference (Ochwada 1998). The Board is supposed to grant loans to needy students in order for them to pay for tuition, accommodation and catering. However, there have been allegations that loans and bursaries have at times been granted to the well-to-do while some needy students have been left out. This therefore forced them to either defer to discontinue their studies, or get involved in income-generating activities to pay for their upkeep at the expense of their studies. These were actually the fears expressed by Blair (1997).

Ochwada (1998) and Antony (1998) noted that the crisis in public universities had reached such proportions that one could only hope they did not get worse. The critical issues were numerous and included declining quality of teaching and perennial student unrest and revolts, lack of creative innovation and vision and an academic culture based on personal patronage, resulting in rapid decline in education standards. One contributory factor to the above issues and hence low educational standards has been identified as the P.A.Y.E. system (Ochwada 1998). According to him, not all students in the public universities could afford two meals a day, let alone a balanced diet; yet hunger and poor nutrition had some potential to impact on students' class concentration.

Antony (1998) observed that P.A.Y.E. had contributed to the deteriorating academic standards in public universities, hitherto cauldrons and citadels of intellectualism. He further observed that university students had today become businessmen and businesswomen, involved in income-generating activities that ranged from selling loaves of bread, cigarettes, foodstuffs, clothes, to dyeing clothes, operating hair and beauty salons. Some even roasted and sold maize to make ends meet. Unfortunately, such businesses consumed a lot of time that would have otherwise been valuably utilised in the library and on other academic pursuits.

The Master Plan on Education and Training in Kenya (1997-2010) pointed out that plans were underway to separate catering from accommodation and tuition. This was an attempt towards provision of a lasting solution to problems at the public universities in Kenya. However, there is still need to find out the extent to which the P.A.Y.E. system affects university education in Kenya.

## **1.2 Statement of the Problem**

The inception of the P.A.Y.E. system at all public universities in Kenya in 1992 aimed at instilling discipline and a sense of responsibility among university students. This, it was hoped would go a long way in preparing

them to be development-conscious citizens. Further, it was aimed at improving efficiency in resource allocation and utilisation. However, judged by the frequent strikes that at times culminated in loss of life (Ochwada 1998) and other student activities such as the search for food, promiscuity and stress manifested symptoms among students, it appeared that the objectives of introducing the P.A.Y.E. system had not been realised. Passing remarks in the media indicated a fall in academic standards, deteriorating moral standards and escalating electricity bills incurred by universities. Disconnection of electricity resulting from high-unsettled bills had mostly resulted in strikes. Social vices such as theft, vandalism and drunkenness were also reported (Antony 1998). Reports featured in the media that students had become businessmen and businesswomen (Antony 1998; Ochwada 1998) at the expense of studies.

All these were an indication that what the government set out to achieve through P.A.Y.E. was not being achieved. However, these are allegations and as such, it was imperative to establish some specific data on the impact of the P.A.Y.E. system on university education in Kenya. This study was conducted as an attempt towards this end.

### **1.3 Purpose of the Study**

The study aimed at coming up with specific data addressing the impact of the P.A.Y.E. system on education in public universities in Kenya. It was hoped that based on the findings, ameliorative measures would be suggested to improve and make the P.A.Y.E. system effective, efficient and beneficial to all concerned.

### **1.4 Objectives of the Study**

The study had four specific objectives:

- to find out the impact of the P.A.Y.E. system on education in public universities in Kenya;
- to establish the benefits of the P.A.Y.E. system on university education in Kenya;
- to identify problems faced by students in the public universities in Kenya due to the P.A.Y.E. system;
- to provide suggestions on the improvement of the P.A.Y.E. system in public universities in Kenya.

### **1.5 Research Questions**

The study was guided by the following research questions:

- To what extent does the P.A.Y.E. system affect education in public universities in Kenya?
- What are the benefits of the P.A.Y.E. system?
- What problems do students in public universities in Kenya face due to the P.A.Y.E. system?
- How could the P. A.Y.E. system be made more beneficial to all parties concerned, and in particular students at the public universities in Kenya?

### **1.6 Significance of the Study**

The controversy surrounding the P.A.Y.E. system since its inception in Kenya in 1992 has not been systematically addressed through any formal research or study.

Journalists and reporters have only reported concerns about its benefits and ills in the media, the bases of which most of the time have been short-term informal surveys.

It was hoped that first, the findings of this study would shed some light and thus create an awareness for educational planners and university administrators on the impact of the P.A.Y.E. system on university education. Secondly, it was hoped that the study would help universities to formulate realistic strategies in addressing some of the problems faced by students as a result of the P.A.Y.E. system. Lastly, it was hoped that the findings of the study would provide specific data to act as a working platform for further studies and revision with a view to making the P.A.Y.E. system more effective, efficient and profitable to all stakeholders.

### **1.7 Assumptions of the Study**

The study made the following assumptions:

- the introduction of the P.A.Y.E. system in public universities in Kenya instilled discipline and a sense of responsibility among students;
- all needy students received HELB loans;
- the P.A.Y.E. system did not have any negative effect on academic work.

### 1.8 Limitations of the Study

The study limited itself to public universities in Kenya. This was mainly because most students in private universities are able to pay all fees since they come from economically stable backgrounds, whereas many students within public universities are from families with poor economic backgrounds. These students are at times not awarded loans from HELB (Ochwada 1998). Although it had been proposed that the sample be drawn from two public universities, this was not possible because permission to obtain data from a university other than Egerton University was not granted by the Office of the President due to the specificity of the research topic. It was thus hoped that data on which the results are based was representative.

### 1.9 Definition of Terms

Terms that carried a unique meaning for the purpose of this study are defined as follows.

**Peer Counsellors:** These are students appointed by the peer-counselling project of Egerton University for the purpose of counselling their fellow students. It has been found that most students are shy to divulge their identity and problems to anyone else other than the peer counsellor.

**Pirating:** A slang used by Egerton University students to mean illegal accommodation in the university halls of residence. Under this arrangement, one student pays for one bed to be shared by two students. The money that would have been spent for the second bed is then saved and used for upkeep and meals.

**Jua Kali:** A Kiswahili word meaning 'hot sun'. This term is used to describe businesses, especially artisan and carpentry, that are conducted in the open air under the hot sun.

**Variables:** The independent variable in this study was the P.A.Y.E. system, while the dependent variable was university education. Education was taken to encompass all its three dimensions, viz, formal, informal and non-formal. The formal aspect was taken to mean the academic aspect and was perceived through class attendance, completion of university programmes, student registration to university programmes, quality of attainment in examinations, quality of completed assignments, student usage of library, and student purchase of recommended textbooks and learning materials. The informal aspect was perceived through aspects such as financial management, time management and moral values. The non-formal aspect was perceived through useful group activities engaged in by students outside lectures.

## 2. LITERATURE REVIEW

### 2.1 Introduction

This section reviews some selected studies on Structural Adjustment Programmes, specifically the (P.A.Y.E.) system. The literature is based on African universities in general and Kenya in particular. Three specific areas are looked into:

- general information on cost-sharing in Kenyan universities;
- case studies on the impact of P.A.Y.E. on education in some universities in Africa;
- the impact of P.A.Y.E. on education in public universities in Kenya.

### 2.2 General Information on Cost-sharing in Kenyan Universities

Between 1963 and 1991, the state provided all resources needed by public universities in Kenya. In this system, all public universities received all their funding from the government, which also paid students full living expenses. As the student's living expenses became less affordable, a student loan scheme was introduced in 1974, from which students borrowed money against their future earnings. The scheme was supposed to operate on a revolving and self-financing basis.

However, due to weak administrative mechanisms and high rates of default, this aim was never achieved. With the growth of student enrolment, the government became over-stretched. Between 1974 and 1997, the government had disbursed loans close to Ksh. 6 billion (approximately USD 0.08 billion) through two commercial bank agents of which only Ksh. 204 million (approximately USD 2.74 million) had been recovered by 1997 (Wandiga 1997). The increment in loans disbursement was not matched with financial provision to universities. This was compounded by high inflation rates. In order to meet students' welfare, the institutions were forced to divert some of the financial provisions to pay for food and accommodation for students. This had a direct consequence on academic quality. Further, consequences of SAPs on higher education are treated in subsequent sections.

#### *2.2.1 The Impact of SAPs on Higher Education in Africa: A General View*

According to Omari (1991), SAPs had a negative impact on higher education in Africa. He observed that the objective of cost-sharing to inculcate a sense of responsibility and imparting of leadership qualities had

failed. Instead, it had resulted in deterioration of intellectual work at universities and the social quality of university experiences had greatly been eroded. He also lamented that most universities in Africa were worse off than they were before the introduction of SAPs. According to him, it was not uncommon to find students sharing dormitory beds, students scrambling for food in kiosks in shanty towns while some students survived on one meal per day. All these had an impact on education. Samoff (1991) supported these views. He noted that due to SAP measures, universities in Africa have been redefined to a point where they were more or less like parastatal bodies. Accordingly, universities were more occupied with income-generating activities than with education and research. Yet, it is a fact that universities cannot insulate themselves from a universal acclaim as members of a worldwide academic community, committed to scholarship. In order to achieve appropriate scholarly prestige, student welfare has to be put into perspective.

Samoff (1991) further noted that “universities cannot abandon students and say that all financial and welfare matters are the responsibility of the state, their parents or themselves, since academic life and student welfare were inseparable”. He was quite critical about the idea of professors having to teach hungry, haggard students in tattered clothing, wearing bathroom slippers, some of which were made out of worn out car tyres. He warned that the universities that contemplated on walking out of students’ lives courted a far more serious student crisis in the future.

On the same issue, Blair (1997) came up with a model of possible sources of support for students. Accordingly, this would provide support to poor but academically gifted students (fig 1). What emerges from the foregoing is that cost-sharing, and hence P.A.Y.E. as a cost-sharing measure, may not be workable in Africa. However, it is appropriate to look deeper into the matter to come up with a fair verdict. It was this line of thought that necessitated this study.

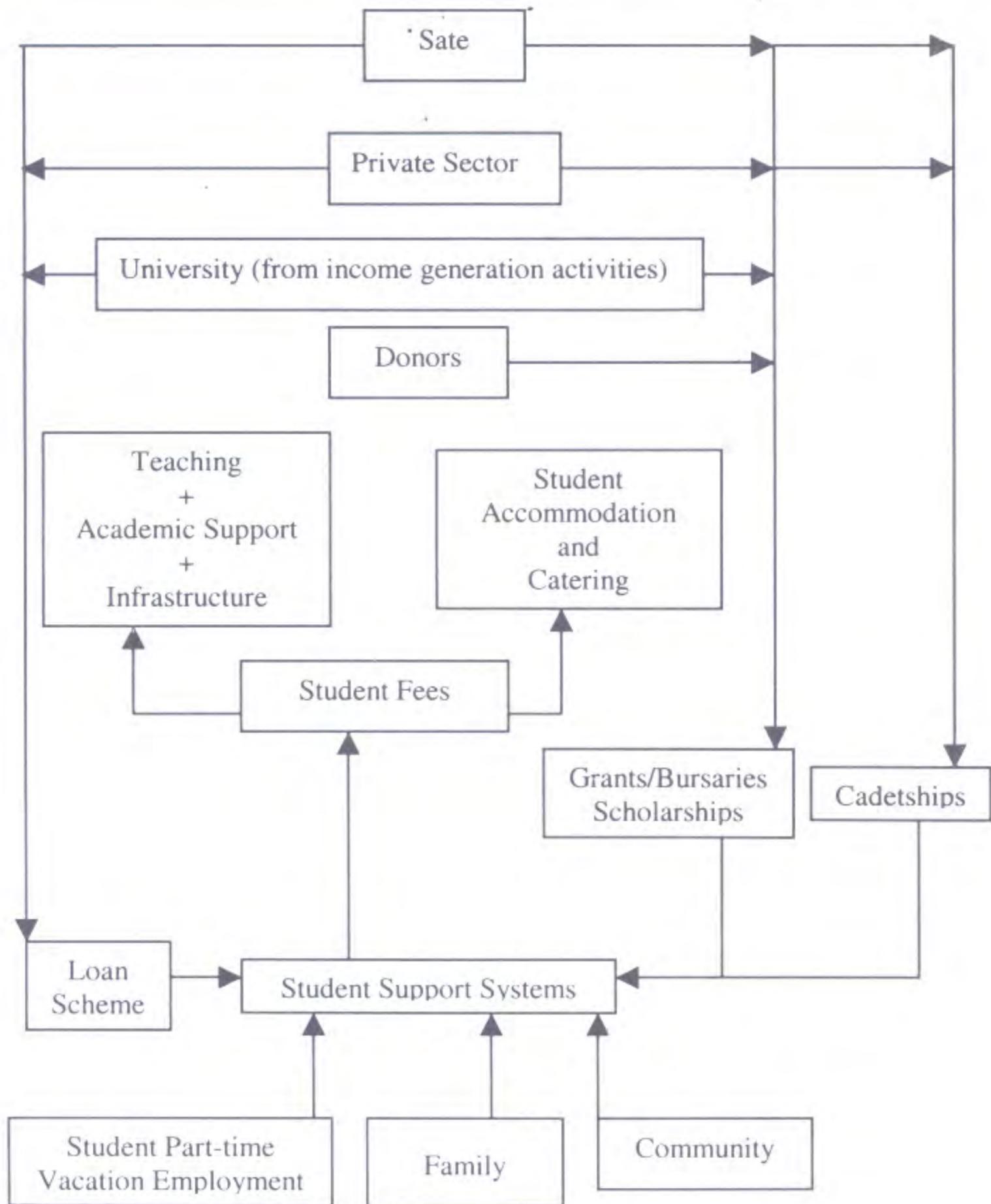


Fig. 1. Model of possible multiple sources of support for students (Blair 1997).

### 2.2.2 Case Studies on the Impact of P.A.Y.E. on Education in Selected Universities in Africa

In August 1991, Kenya sent out a group of scholars on an educational study tour in selected universities in Africa. Table 1 provides a summary of their findings on the P.A.Y.E. system.

Table 1. Findings on P.A.Y.E. system

<i>Researcher</i>	<i>University (no. of students)</i>	<i>Country</i>	<i>Findings</i>
L. N. Mich and S. N. Mutunga (1-15 August 1991)	<ul style="list-style-type: none"> <li>• American University in Cairo (3,800)</li> <li>• Cairo University (120,000)</li> <li>• Air-shams University (120,000)</li> <li>• University of Alexandria (over 100,000)</li> </ul>	Egypt	<ul style="list-style-type: none"> <li>• Meals booked a day in advance</li> <li>• Student problems reduced</li> <li>• Food-triggered riots minimized</li> <li>• Food wastage reduced</li> </ul>
T. D. K. Serem and O. Okelo (1991)	<ul style="list-style-type: none"> <li>• University of Pretoria (24,000)</li> <li>• Medical University of South Africa (2,100)</li> <li>• University of Cape Town (15,000)</li> <li>• Technikon College (3,000)</li> </ul>	South Africa	<ul style="list-style-type: none"> <li>• Students more responsible</li> <li>• Institutions cut on food wastage tremendously</li> </ul>

*Contd.*

K.E. Senanu	<ul style="list-style-type: none"> <li>• Ibadan University</li> </ul>	Nigeria	<ul style="list-style-type: none"> <li>• System implemented in academic year 1984-95</li> <li>• Positive impact on education as student's numbers had increased from 8,000 in 1970s to 13,500 in 1991, with an annual increase of 12.5%</li> <li>• A lot of cooking within halls of residence</li> <li>• Fire in one hall of residence</li> <li>• Theft cases on increase</li> <li>• Student squatting</li> </ul>
M. Gathiga and R. Oniang'o (22-30 August 1991)	<ul style="list-style-type: none"> <li>• Lagos University (12,000)</li> <li>• Rivers State University (7,000)</li> <li>• University of Port Harcourt (no figure)</li> <li>• University of Ibadam (17,000)</li> </ul>	Nigeria	<ul style="list-style-type: none"> <li>• System in operation since 1984</li> <li>• Catering contracted to outsiders – university stepped in only when there were problems</li> <li>• Vendors sold foodstuff in students' rooms</li> <li>• Catering facilities inadequate and very poorly maintained</li> <li>• Rampant squatting by students</li> </ul>

*Contd.*

		<ul style="list-style-type: none"> <li>• A lot of cooking within halls of residence</li> <li>• Students withdrew from universities on financial grounds</li> <li>• Complaint of waiting in queue for 2 hrs. before being served</li> </ul>
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It is observed from the above findings that the P.A.Y.E. system has been regarded as a positive venture in education, since it shifts responsibility from the administration to the students thus enhancing responsibility and discipline. The food-triggered riots have also been minimised thus allowing more stability and peace within universities. However, there was still a need to find out, particularly from the students themselves, what the impact of squatting, cooking within halls of residence and inadequate facilities generally had on their education. The attempt to do so is not beyond the purview of this study.

### ***2.2.3 The Impact of the P.A.Y.E. System on Education in Public Universities in Kenya***

Handa (1991) and Kibor (1992) pointed out that the P.A.Y.E. system had a lot of positive impact on university education in Kenya. Not only did the system expose students to realities of life by allowing them to handle and manage their money thus creating a sense of responsibility that would also be reflected in their educational pursuits, but it also enabled students to be guided by reason and facts.

However, according to the *East African Standard* (1992), most students joining public universities in Kenya were not mature enough to fully handle their own finances and many had not handled a lot of money before. Consequently, giving them a lump sum of money to handle at once was likely to lead to situations where money was either misused or stolen. This could lead to dire consequences since there was a greater risk of going without food, thereby greatly affecting their academic pursuits. In a survey at the University of Nairobi, Muiruri (1992) noted that most students ran out of money within the first weeks of the semester and had to revert to survival tactics such as skipping meals, visiting comrades during mealtime, or cooking in their rooms. These were activities that consumed a lot of study time. However, jumping to conclusions could be quite speculative.

Besides, the information is based on journalistic views, and only formal research could yield useful information. Commenting on the same issue, Ochwada (1998) noted that the P.A.Y.E. system had affected students socially, economically and health-wise. Socially, class differences had been introduced within universities. He added that the quantity and quality of food bought by students easily portrayed their socio-economic backgrounds. He also observed that the P.A.Y.E. system was time-consuming, since students at times spent hours awaiting to pay for food. According to him, the wasted time could have been valuably spent on academic work. On the economic effect he explained that some very needy students did not get government loans or bursaries. This led some students to revert to being traders who sold personal effects such as clothes, shoes, soap, oil and books. According to him, some students converted their rooms into food kiosks, tailoring shops, shoe repair joints and hair salons. If these observations are true then not only do the businesses disrupt other students in adjacent rooms, but they also consume a lot of time that would have been put to studies by the student traders. However, these may just be far-fetched allegations that are subject to confirmation through formal research. It has also been alleged that this system has created a lot of health risks (Ochwada 1998; Omuondo 1992).

Students usually discover cheaper eating venues outside the universities. However, at such places, good hygienic conditions are not guaranteed. Thus cases of typhoid and diarrhoea have been on the increase. It was also reported that the need for students to obtain money for food has led to increased cases of promiscuity. This is a worrying phenomenon especially with cases of HIV/AIDS being on the increase in public universities in Kenya. Besides, it has been said that leftover foodstuffs within halls of residence have also encouraged mice and rats within student quarters. These may contribute to students' poor health, which has an impact on their education. The above observations on health are quite serious. However, it is necessary for research to provide more substantiating data on the issue. A fact-finding informal survey by the author within Egerton University (1998) revealed that the P.A.Y.E. system had resulted in students engaging in pirating whereby two students shared a bed after one had paid for the room. The money saved by the partner was then used to pay for food. The survey also revealed that when students got loans from HELB, they did not usually use it for the purposes intended by the financier and within no time they went broke. This led most students to begin cooking in their rooms since it was cheaper than buying food from the university cafeteria. Businesses not related to foodstuffs were also reported. These included selling of local or illicit brew, cigarettes, bread, stationery, radio and electronic repairs, and even running typing bureaus. All these, it was alleged, took place in the

halls of residence. Further information included an increase in prostitution from mid to end of semester. It was alleged that student boyfriends could not provide enough at the time, since both the girl and the boy were broke.

In a bid to overcome the financial stress, the girls opted for prostitution. Some other sources of information revealed that blackouts were very common within the halls of residence due to overloading in the circuit breakers during cooking. This posed the risk of fire outbreaks. It was further revealed that in a bid to avoid the rampant blackouts, students vandalised many electric gadgets. This was reported to be more common in the men's halls of residence. Gadgets had been vandalised and power tapped directly from the main supply without passing through safety circuit breakers. The much-talked about power blackouts were said to in turn affect students' studies since they could not work in darkness. However, all these allegations were not backed with any hard data, and thus necessitated research to substantiate and back the allegations.

During the same fact finding survey by the researcher, availed documentary literature on medical and security issues of Egerton University indicated that the P. A.Y.E. resulted in a lot of crime, health problems and stress among students. Although the information summarised in tables 2, 3, and 4 was quite revealing, it was necessary to obtain more up-to-date information on the issues, and also to interview the concerned officers for clarification, especially as far as P.A.Y.E. was concerned.

Table 2. Conditions of medical attention reported by students, 1997

Cases	Month	Sex	Class (Year)
Suicide attempt	May	Female	1995
Drug poisoning	May	Female	
Depression	June	Female	1994
Depression	August	Female	1994
Alcoholic coma	October		1997
Alcoholic	November	Male	1997

SOURCE: Medical Department, Egerton University (January 1988).

Table 3. Security cases involving students

Case/Offence	No. of cases reported	
	1996	1997
Theft	10	48
Assault	2	8
Drug and illicit brew	1	2
Rape	-	2
Drugs	-	-
Arson	1	2

SOURCE: Security Office, Egerton University (January 1998).

Table 4. Sexually transmitted diseases (STDS) and abortions from out-patients for the year ended December 1997

Month	Number of cases reported		
	UTI	Gonorrhoea	Abortion
January	69	31	4
February	-	-	2
March	20	7	1
April	27	-	3
May	23	2	-
June	8	2	1
July	9	-	-
August	53	-	-
September	4	-	1
October	16	1	-
November	5	6	-
December	Not yet reported	Organised	-

SOURCE: Medical Department, Egerton University, January 1998.

Notes: UTI = Urinary Tract Infection.

Information from the medical department indicated that most of the cases were reported by students. This further indicated that sexual promiscuity was prevalent among students. In the case of HIV/AIDS, a total of fourteen cases were reported during the fourth quarter of 1996 (10 males and 4

females) and one case (female) reported in the first quarter of 1997. However, formal research was necessary to unveil more information.

### 2.3 Theoretical Framework

This study was based on two theories: Maslow's (1970) theory of hierarchy of needs, the neo-classical theory of hierarchy of needs, and the neo-classical theory of demand and supply. The two theories guided the study in that the researcher made an attempt to establish the extent to which lack of food (a basic need) impacted on educational standards (efficiency) at public universities in Kenya.

#### 2.3.1. Maslow's Theory

Maslow came up with a hierarchy of needs beginning with the very basic, such as need for food, shelter and water, to the meta or growth needs such as need for knowledge and self-actualisation (fig. 2).

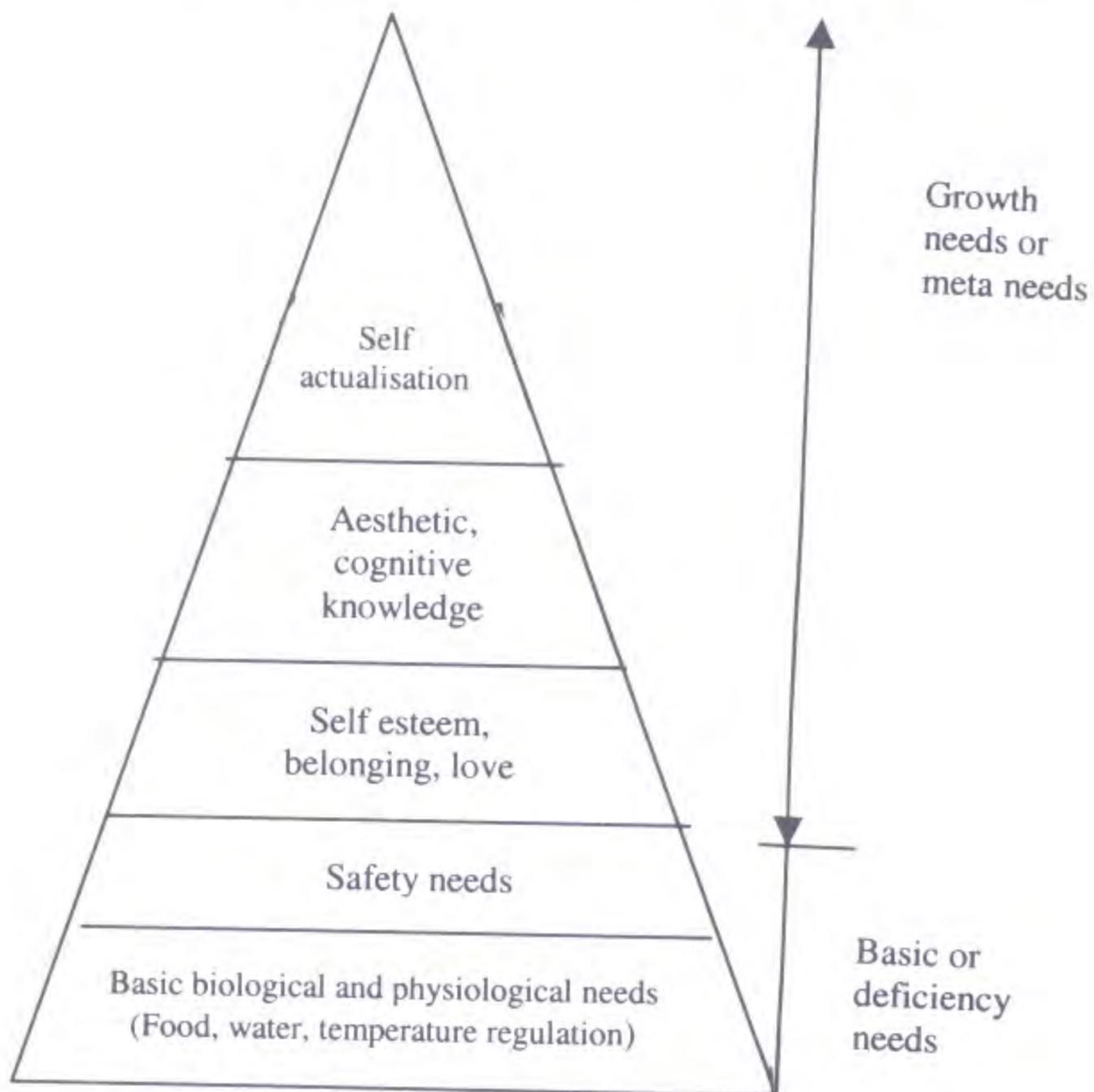


Fig. 2. Maslow's hierarchy of needs

According to his theory, basic needs have to be fulfilled before growth needs are considered. In this respect, a person whose need for food has not been fulfilled may not even think about cognitive needs, under which need for knowledge and education are classified. The affected person is likely to involve his/herself in activities that will ensure that hunger has been taken care of before venturing into activities that fulfil the need for knowledge. This theory guided the study in that the researcher made an attempt to find out the extent to which the much-publicised (in the media) lack of food at public universities in Kenya orients students' activities, and its impact on education.

### 2.3.2. *The Neo-Classical Theory of Demand and Supply*

Maslow's theory guided the study on the basis of how need for food impacted on education. The neo-classical theory of demand and supply guided it on the basis of the activities involved in by students in their bid to minimise cost and maximise quantity and quality as far as obtaining food was concerned; and how these activities impacted on education. The theory of demand and supply points out that the higher the price, the higher the quantity supplied, and the lower the quantity demanded. Conversely, the lower the price, the lower the quantity supplied and the higher the quantity demanded (fig. 3).



Fig. 3. Price versus quantity supplied at equilibrium.

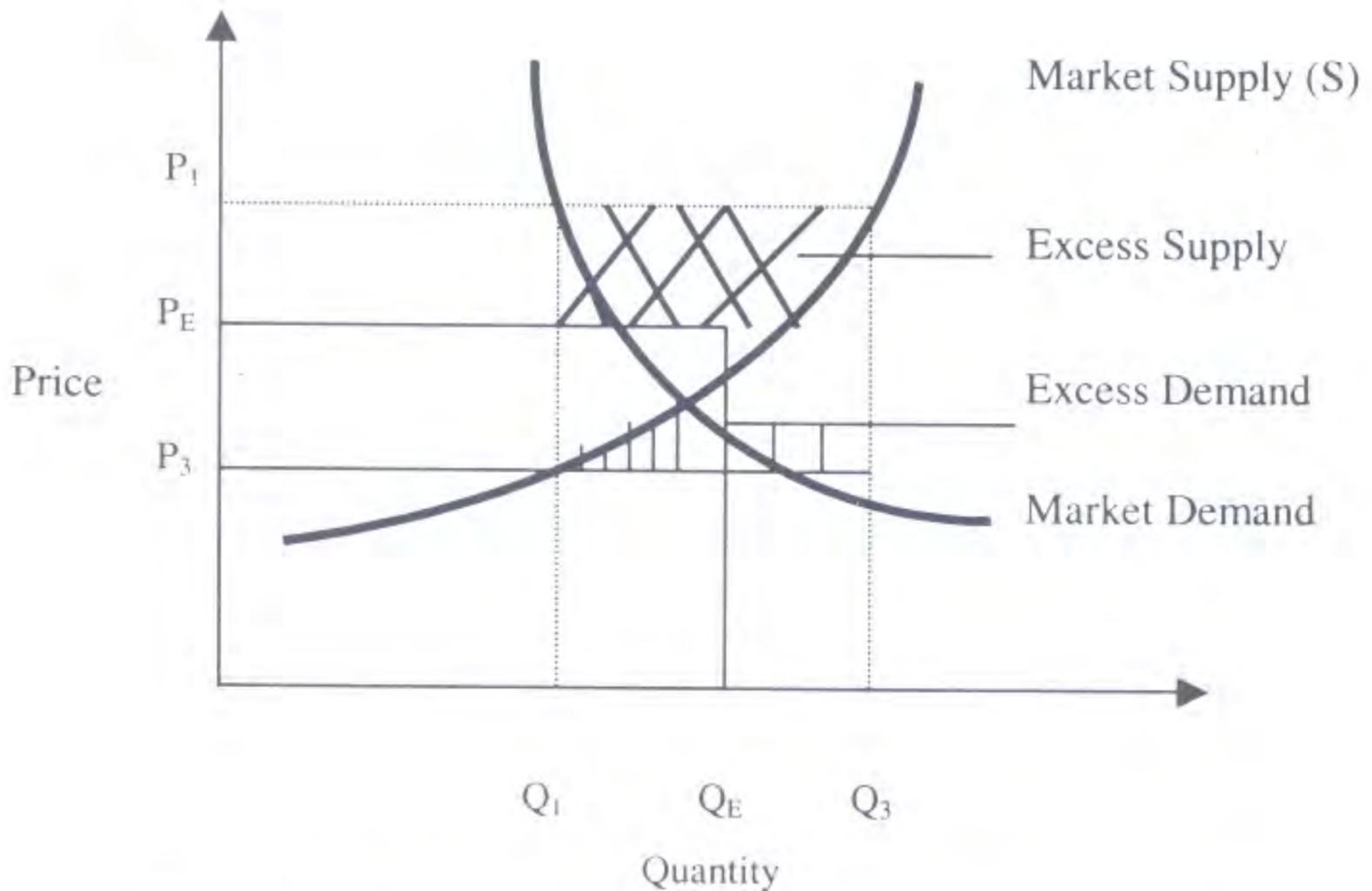


Fig. 4. Price versus quantity supplied above and below equilibrium.

$Q_1$  = Quantity at price  $P_1$

$Q_E$  = Quantity at equilibrium price  $P_e$

$Q_2$  = Quantity at price  $P_2$

Note:  $\Delta P$  from  $P_e \rightarrow P_1 \Rightarrow \uparrow Q_s \downarrow QD$

$\Delta P$  from  $P_e \rightarrow P_3 \Rightarrow \downarrow Q_s \uparrow QD$

Where  $\Delta P$  is a small change in price;

$\downarrow$  means decrease while  $\uparrow$  means increase;

$Q_s$  is quantity supplied;

$QD$  is quantity demanded.

Notable from the figure is that a small change in price between  $P_e$  and  $P_1$  implies a rise in quantity supplied and a drop in quantity demanded. Conversely, a small change in price between  $P_e$  and  $P_3$  implies a fall in quantity supplied and a rise in quantity demanded and a drop in quantity

demanded. Conversely, a small change in price between  $P_e$  and  $P_2$  implies a falling quantity supplied and a rise in quantity demanded. According to Schiller (1996) and Deketele (1997), efficiency is the maximum output of goods from resources used in production. Thus, firms (in this case public universities) strive to provide quality education demanded by consumers (students) through the most efficient combination of resources. In this case, public universities aim at minimising the cost of providing quality education, while students aim at maximising the fulfilment of their needs (food, shelter, and education) at minimum cost.

Narrowing this to the P.A.Y.E. system, it may be argued (fig. 4) that a university stands to gain by supplying the quantity  $Q_2$  of food at cost  $P_1$ , basing on the assumption that it will all be purchased and consumed by students. On the basis of this assumption, there will be no food wastage and the profit realised by the university through catering would be allocated to support academic programmes. However, it may be that the price  $P_1$  quoted by the university is not affordable for most students. They would then either resort to buying a smaller quantity of food  $Q_1$ , at a lower price  $P_2$ , or strive to obtain the larger quantity  $Q_2$ , at the lower price  $P_2$  but from a different source. This latter case may even mean that students get involved in many activities in their bid to maximise quantity and minimise cost. These varied activities are likely to consume a lot of valuable time meant for studies. The activities may also have costly consequences for the university, thus implying that funds meant for academic programmes are redirected to meet these expenses, and thus lower academic standards. It was this mode of argument that guided this study.

## 2.4 General Observation

As the review demonstrates, there is very little literature on the subject of pay-as-you-eat (P.A.Y.E.) per se. Moreover, most of the literature reviewed is based mainly on journalistic views through the media. The little that is based on researched work does not focus directly on P.A.Y.E., rather it is concerned with cost-sharing generally and in the African context.

However, some of the inconsistencies reported on the impact of cost-sharing and consequently P.A.Y.E. indicated a need for research in the area.

## 3. RESEARCH METHODOLOGY

### 3.1 Introduction

This section deals with the design and procedure adopted for the study and also describes the tools used for data collection. A detailed description of the data collection procedure, and data analysis is also provided.

The study was a descriptive survey of Egerton University students. The target population consisted of students in public universities in Kenya. The accessible population was students from Egerton University, Njoro. Egerton University, like the other four state universities, admits students through the university Joint Admission Board (J.A.B.); and therefore highly replicates student profiles of the other universities. It was therefore considered as a good representative of the others as far as this study was concerned.

### **3.2 Sampling**

According to Kathuri and Pals (1993), the size of a sample should be sufficiently large to allow an accurate interpretation of the results and at the same time to ensure that the data is manageable. They recommend thresholds of 100 subjects for each major group in a population, and 20 and 50 subjects in each minor group. They indicate that the choice of a reasonable sample size saved time and limited resources.

Currently, Egerton University has a student population of about 4200. These students are distributed in six faculties, namely, Faculty of Science (FS), Faculty of Arts and Social Science (FASS), Faculty of Agriculture (FA), Faculty of Education and Human Resources (FEDHURE), Faculty of Environmental Sciences and Natural Resources (FSNARE) and Faculty of Engineering (FE).

The Faculty of Engineering was carved out of the larger Faculty of Agriculture. As such the two were merged for the purpose of sampling in such a way that 100 students were drawn jointly from both. This is the group that also consisted of fifth-year students, since the Engineering course goes to five years. Ninety-six students were then drawn from each of the other four faculties that go up to four years. Sixteen peer counsellors (four from each of years two to five) were also sampled. Thus a total of 500 students were sampled for the study through random stratification along faculty and year of study basis. Care was taken to include both genders. It was deemed important to interview peer counsellors because they interact a lot with the rest of the students, and especially those with problems. First-years were not included in this category because they had just reported for their first semester at the University during the period of data collection and as such had no appointed representative as a peer counsellor at the time. The breakdown of the student sample is shown in table 5.

Table 5. Breakdown of student sample

Faculty	Year 1		Year 2		Year 3		Year 4		Year 5		Total
	M	F	M	F	M	F	M	F	F		
FASS	12	12	12	12	12	12	12	12	-	-	96
FEDHURE	12	12	12	12	12	12	12	12	-	-	96
FSNARE	12	12	12	12	12	12	12	12	-	-	96
FS	12	12	12	12	12	12	12	12	-	-	96
FA	5	5	5	5	5	5	5	5	-	-	40
FE	5	5	5	5	5	5	5	5	10	10	60
Peer Counsellors	0	0	2	2	2	2					16
Grand Total											500

The staff sample was drawn purposively to include the following:

Academic deans from six faculties	6
Dean of students	1
Chief halls officer	1
Bookshop manager	1
Chief security officer	1
University counsellor	1
Chief librarian	1
Chief catering officer	1
Chief medical officer	1
Registrar (Academic Affairs)	1
Senior Assistant Registrar (Admissions)	1
Total	6

In order to obtain more information, members of the community around the University with whom students interact were also interviewed. This consisted of a randomly selected sample drawn as follows:

Parents	10
Landlords	10
Kiosk owners	10
Total	30

Thus, the total sample consisted of 546 respondents.

### **3.3 Research Instruments**

The research instruments were specifically designed to meet the objectives of the study as outlined in section one. Four types of instruments were developed and used for data collection. These were a student questionnaire, structured interview schedules, observation schedules and a focus group discussion schedule.

#### **3.3.1 Structured Interview Schedules**

This was a structured tool consisting of 13 items designed to obtain information from students mainly about the P.A.Y.E. system. Items 1, 2 and 3 solicited students' personal data. Items 4, 5, 7, 8 and 9 solicited information concerning meals. Item 6 was mainly concerned with information on time spent on various daily activities. Items 10, 11, 12 and 13 were focussed more on P.A.Y.E.

#### **3.3.2 Structured Interview Schedules**

These were used to first ensure that all the required data was obtained; and secondly, to allow for an in-depth study. These were administered to university staff, peer counsellors, parents, kiosk owners and landlords.

#### **3.3.3 Observations Schedule**

This was in the form of a checklist and was targeted at students during their activities at the catering units, halls of residence, and shopping centres. The researcher in a bid to highlight any information that may have been overlooked through interviews carried out observations.

#### **3.3.4 Discussion Schedule**

This was used to obtain a general picture and to gain a further understanding and perception about the P.A.Y.E. system. The focus group consisted of students, and a participatory approach was employed.

### **3.4 Data Collection**

Data was collected between the months of June and October 1999.

#### **3.4.1 Students' Data**

The students' questionnaire was administered to 600 students to ensure that the questionnaires returned would be in line with the breakdown as shown in table 5. Since the study was sensitive in nature and bound to encroach on the private lives of students, the instrument was carefully designed in a straightforward manner before it was passed on to the students. The administration of this tool was done in person with the aid of research

assistants. After explaining the purpose of the study to students, they were given a week to complete the questionnaires after which they were collected. The rate of return was high since five hundred questionnaires were collected in person in line with the breakdown in table 5. In order to obtain more information concerning students, an observation schedule was used to observe students in the catering units, halls of residence, the university library and the shopping areas. This was done in three phases, at the beginning of the semester, mid-semester and the end of the semester. More information was also obtained from a small representative group of 25 students mainly fourth years and peer counsellors through discussions based on a participatory approach. This group was deliberately drawn to consist of students who have been in the University for long, and had therefore more experience with the P.A.Y.E. system. Peer counsellors were also separately interviewed, since they interacted more with students who had problems, which they did not wish to discuss with the members of staff. Some other information was indirectly obtained through interviews with University staff, parents, kiosk owners and landlords.

#### ***3.4.2 Data from University Staff***

In order to obtain data from University staff on the P.A.Y.E. system, different structured interview schedules were administered. The deans, the six faculties, the dean of students, the bookshop manager, the chief security officer, the chief halls officer, the chief librarian, the university counsellor, the chief catering officer, the registrar (academic affairs) and the senior administrative assistant in charge of student admissions were interviewed.

An interview was deemed necessary mainly because as noted by Kerlinger (1973) many people are more willing to communicate orally than in writing and would thus provide data more readily in an interview than through a questionnaire. It was also felt an interview would enable the researcher to probe and unearth more information concerning the P. A.Y.E. system.

#### ***3.4.3 Data from the Community with Which Students Interact Closely***

This kind of data was obtained through structured interview schedules administered to parents of children studying at public universities, owners of kiosks where students purchase their livelihood commodities, and landlords of rental houses where some students reside.

### **3.5 Data Analysis**

Analysis was mainly done qualitatively. It proceeded item-wise as far as the interviews and observations were concerned, and results were either tabulated or summarised in figure form as shown in section four. Data analysis from the discussion was carried out with the discussion group

through a participatory approach and results summarised as shown in section four. The findings based on the interview schedules were compared with those obtained from the observation schedules, group discussions and student questionnaires to elicit some discussion based on the objectives of the study. Some quantitative analysis based on computation of frequencies and percentages was done for quantitative data, in order to aid in the discussion.

## **4. RESULTS AND DISCUSSION**

### **4.1 Introduction**

In this section, results obtained from data collected are presented either in tabular form or by use of figures. The students' data is presented in section 4.2, while data from the university staff, and the community is presented in section 4.3.

### **4.2 Presentation of Results from Students' Data**

Table 6 summarises results for items 4, 7, 8, 9, 10, 11, 12 on the students' questionnaire. Results for item 6 of the same questionnaire are summarised in table 7. Results of the focus group discussion are summarised in tables 8, 9, 10, 11, 12.

Table 6 shows that 53% of students at least ate three meals per day. This, they revealed, was because they cooked food for themselves in turns. Students have formed survival groups through which they share the food budget thus making food more affordable, and to ensure that they save some time off cooking to do some studies. The results show that 94.8% of the students prepared their own food within the halls of residence. According to students, they obtained raw foodstuffs from food kiosks around the university. Ninety-four percent of students reported that the HELB support was not adequate, and as such they found a more affordable means of survival by cooking their own food. As to whether P.A.Y.E. was beneficial, 94% of students reported that it was only beneficial to the University, while 92% did not identify its perceived benefit to education. Only 33.6% found it to be beneficial to the students. While 96% of students were positive that P.A.Y.E. had negative effects on the social life of students, only 10% thought that it adversely affected their health. Those 10% indicated that they fed poorly, and that the poorly prepared food sometimes caused them stomach upsets. Seventy percent of students reported that P.A.Y.E. affected their academic standards negatively due to the time consumed on food pursuits thus limiting time for private studies. This corroborated the view of 86.8% of student respondents, which

indicated that cooking in halls of residence affected them in one way or another.

Table 6. Results for items 4, 7, 8, 9, 10, 11, and 12 of students' questionnaire (N=500)

Item No.	No. of meals/Day	Student %	
4	0	0.0	
	1	3.6	
	2	30.0	
	3	53.0	
	>3	13.4	
7	Place of eating		
	• Own preparation	94.8	
	• Mess	5.2	
8	• Food kiosk*	0.0	
	Effect of food preparation Within halls of residence		
	• Yes	86.8	
9	• No	13.2	
	Where students obtain food		
	• Own preparation	94.8	
10	• Mess		
	• Food kiosk*		
	Support from HELB		
11	• Adequate		
	• Inadequate		
	• None		
	Benefits of P.A.Y.E.		
	• Students	Yes No	33.6 66.4
	• Education	Yes No	8.0 92.0
12	Effects of P.A.Y.E.		
	• Academic	Yes No	70.0 30.0
	• Health	Yes No	9.0
	• Social	Yes No	4.0

\*Students do not eat at food kiosks, they only purchase raw foodstuff for own preparation.

Table 7. Results of item 6 of student questionnaire (N=500).

Time/hours	Lecture halls	*Library	Halls of residence	Leisure	Own food preparation	**Other
	%	%	%	%	%	%
0-3	0.6	50.0	11.4	89.2	73.8	93.4
3-6	29.8	50.0	8.0	9.6	24.4	6.0
6-9	61.2	0.0	14.14.00	0.6	1.21.2	00
9-12	8.4	0.0	66.6	0.6	0.60.0	0.6
Total	100	100	100	11000	100	100

\* Although the table shows that 50% of students spent some time in the library, it is worth noting that the majority of these spent 0 hours in the library.

\*\* The activities mainly engaged in were shopping.

*Note:* Time spent in the dining halls is not tabulated. Results indicated that only 52% of the students had their three daily meals in the student mess. The remaining 94% prepared meals on their own (cf. table 6).

Table 7 shows that a large percentage of students (73.8%) spent about 3 hours daily on own food preparation, shopping (93.4%) and leisure (89.2%) instead of the library. The table also shows that 61.2% of students spent between 6-9 hours in the lecture halls, while 66.6% of students spent between 9-12 hours in their halls of residence. This was an indication that the majority of students spent too much time on activities that did not augur well with academic pursuit (see table 9).

Despite the fact that most of the commodities were available both within and outside the University as shown in the figure, 99% of the students interviewed indicated that they preferred to purchase goods from outside the University where the quality, quantity and services rendered were better than in the University.

Table 8. Livelihood mapping for Egerton University students (N=25)

Within and outside the University	Within University	Outside University
Potatoes	Manuals	Perfume
Rice	Staples	Lotion
Tomatoes	Stapler	Body oil
Flour	Punches	Hair oil
Cooking fat	Whiteout	Stoves
Soft drinks	Glue	Clothing
Bread	Medicine	Cooking pots
Salt	Drugs	Electric coils
Hit drinks	Chips	Beans
Eggs		Maize
Milk		Table wine
Cakes		Detergent
Sugar		Soap
Cassava		
Beverages		
Onions		
Stationary		
Pens		
Pencils		
Rubbers		
Calculators		
Lab coats		
Kerosene		
Cutlery		
Crockery		
Kales		

Table 9. Results of problem analysis for Egerton University (N=25)

Problem	Cause	Coping strategy	Opportunity
<ul style="list-style-type: none"> <li>Late registration for university programmes</li> </ul>	<ul style="list-style-type: none"> <li>Lack of fees</li> </ul>	<ul style="list-style-type: none"> <li>Deferment of request to study as one looks for funds</li> </ul>	<ul style="list-style-type: none"> <li>HELB loan</li> <li>Work study programme</li> <li>Donor support</li> <li>Improve halls of residence and the environs</li> </ul>
<ul style="list-style-type: none"> <li>Increased dropouts</li> </ul>	<ul style="list-style-type: none"> <li>Failure in examinations</li> <li>Poor lighting in rooms</li> </ul>		
<ul style="list-style-type: none"> <li>Increased non-completion of degree programmes</li> <li>Low quality performance in examinations</li> <li>Increased resistance to examinations</li> <li>Non-completion of CATS and assignments</li> <li>Absenteeism from lectures</li> </ul>	<ul style="list-style-type: none"> <li>Lack of fees</li> <li>Non-purchase of recommended test books</li> <li>Inadequate seats in library</li> <li>Overcrowding in halls of residence thus overstressing available study facilities</li> </ul> <p>Spending too much time on activities that do not augur well with academic work, e.g., cooking, visiting friends, leisure, hawking, commercial activities and shopping</p>	<ul style="list-style-type: none"> <li>Reading lecture notes in the halls of residence</li> <li>Request for more time</li> <li>Hand in assignments late</li> <li>Request for another test</li> <li>Copying notes from classmates</li> <li>Engaging in money-making and money-saving activities</li> </ul>	

*Contd.*

	<ul style="list-style-type: none"> <li>• Too much time on lecturers leaving little time for private studies, i.e., overloaded timetable.</li> <li>• Lack of funds for food and upkeep</li> <li>• Ill health</li> </ul>		<ul style="list-style-type: none"> <li>• Increase guidance and counselling services on management of funds</li> <li>• Provide subsidised rates in the mess</li> <li>• Expand work study programmes</li> <li>• Increase HELB loan</li> </ul>
<ul style="list-style-type: none"> <li>• Thefts (petty)</li> </ul>	<ul style="list-style-type: none"> <li>• Misuse and mismanagement of funds</li> <li>• Poverty</li> <li>• Lack of funds</li> </ul>	<ul style="list-style-type: none"> <li>• Mob justice</li> </ul>	
<ul style="list-style-type: none"> <li>• Drug abuse</li> </ul>	<ul style="list-style-type: none"> <li>• Stress and depression</li> <li>• Peer pressure</li> <li>• Poor counselling</li> </ul>		
<ul style="list-style-type: none"> <li>• Pregnancies</li> </ul>	<ul style="list-style-type: none"> <li>• Increased promiscuity</li> </ul>	<ul style="list-style-type: none"> <li>• Abortion</li> <li>• Marriages of convenience</li> </ul>	
<ul style="list-style-type: none"> <li>• Inadequate food</li> </ul>	<ul style="list-style-type: none"> <li>• Misuse and mismanagement of funds</li> </ul>	<ul style="list-style-type: none"> <li>• Skipping meals</li> <li>• Cooking for self</li> <li>• Credit facilities</li> <li>• Forming survival groups</li> </ul>	

*Contd.*

<ul style="list-style-type: none"> <li>• Frequent blackouts</li> <li>• Vandalism of electrical gadgets</li> <li>• Dirty areas surrounding halls of residence, corridors and ablutions</li> </ul>	<ul style="list-style-type: none"> <li>• Cooking in rooms</li> <li>• Overloading of electricity supply</li> <li>• Dumping of garbage and food remnants even in hand basins</li> </ul>	<ul style="list-style-type: none"> <li>• Use of candles for reading</li> <li>• Use of spotlights</li> <li>• Use of kerosene stoves for cooking</li> </ul>	<ul style="list-style-type: none"> <li>• Construct kitchenettes</li> <li>• Improve power load to accommodate cooking</li> <li>• Provide subsidies</li> </ul>
<ul style="list-style-type: none"> <li>• Social stratification, patronisation and low self-esteem amongst students</li> </ul>	<ul style="list-style-type: none"> <li>• Poverty</li> <li>• Negative self-image</li> </ul>	<ul style="list-style-type: none"> <li>• Grouping with those of ones kind</li> </ul>	<ul style="list-style-type: none"> <li>• Food rates in mess to stem cooking in rooms</li> <li>• Improve dumping and disposal facilities</li> </ul>
<ul style="list-style-type: none"> <li>• Overcrowded rooms in some hostels</li> <li>• Stress, depression, physical ailments, fatigue</li> </ul>	<ul style="list-style-type: none"> <li>• Pirating in popular hostels to save money on accommodation</li> <li>• Lack of adequate funds</li> <li>• Family background</li> <li>• Relationship with opposite sex</li> </ul>	<ul style="list-style-type: none"> <li>• Sharing beds and stretching existing facilities</li> <li>• Taking antihistamines to reduce stress</li> <li>• Attempted suicides</li> </ul>	<ul style="list-style-type: none"> <li>• Disbursing HELB loans equitably</li> <li>• Charge for room only instead of bed and restrict number of students per room to cost-share the room rent</li> </ul>

*Contd.*

	<ul style="list-style-type: none"> <li>• Living under unhygienic conditions</li> <li>• Poor feeding habits and diets</li> </ul>	<ul style="list-style-type: none"> <li>• Antisocial behaviour</li> </ul>	<ul style="list-style-type: none"> <li>• Intensify guidance and counselling</li> </ul>
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When students receive inadequate funds from HELB, they set aside the little they received for the purpose of meals and upkeep. The idea of paying the fees balance (though it crosses their minds) is not prioritised. Consequently, the University does not register them. Some may dropout due to this, or go home in search of money to offset the fees balance. Unfortunately this goes on while lectures are going on. This may contribute to incompleteness of degree programmes due to low quality performance in the examinations. This low quality performance may be brought about by the reported non-completion of CATS and assignments arising from absenteeism. All these impinge heavily on educational standards at the university.

Table 10. Pair-wise ranking matrix for students' problem (n=25)

Problem	Academic (A)	Socioeconomic (SE)	Health & hygiene (HH)	Score	Rank
Academic (A)			(SE)	1	2
Socioeconomic (SE)			(SE)	2	1
Health & hygiene (HH)				0	3

Table 10 indicates that socioeconomic problems are the most acute consequences of the P.A.Y.E. system. Academic problems rank second while the health and hygiene related problems rank third.

It can be inferred that if socioeconomic problems were solved first, the general well-being of students in public universities would improve.

Table 11. Pair-wise ranking matrix of opportunities to solve problems related to P. A.Y.E.

Opportunity	Work study (WS)	Power load kitchenette (PLK)	Subsidised Mess rates (SMR)	Develop Students Hall and allow cost-sharing (DHR)	HELB loan	Score	Rank
WS		PLK	SMR	WS	HELB	1	4
PLK			SMR	PLK	HELB	1	3
SMR				SMR	SMR	4	1
DHR					HELB	0	5
HELB						3	2
Loan							

Note: HELB -Higher Education Loans Board.

Table 11 shows that the best way to make P.A.Y.E beneficial to all concerned, be it in terms of equitability, cost, technical feasibility, acceptability, timeliness or stability would be to subsidise the rates in the mess to make food more affordable in the catering units. This would put in check all the problems occasioned by cooking in rooms. This measure, if coupled with an equitable disbursement of HELB loans, would ensure that the P.A.Y.E. system works smoothly and the students’ academic pursuits are not interfered with.

Table 12. Egerton University students’ daily calendar (N=25)

Time	Daily activity
6.30 a.m	Wake up and get out of bed
6.30 -7.30 am	Shower, prepare and have breakfast
7.30 - 8.00 am	Prepare for lectures
8.00 am - 2.00 p.m.	Lecturers
12.00 - 2.00 p.m.	Prepare and have lunch
2.00 - 6.00 p.m.	Shopping
7.00 - 9.00 p.m.	Supper
10.00 - 11.00 p.m.	Quiet time/prayers
11.00 - 6.30 a.m	Sleep

Note: There is no entry for library. According to students going to the library is optional (also see table 7).

Table 12 shows that a lot of time is spent shopping and cooking, leaving little time for private studies.

Students prefer reading in their rooms in order to supervise the cooking as they read. It is also noticeable that the non-formal dimension of education

does not feature. According to students, the time for this is spent on cooking and shopping.

Table 13. Semester calendar for Egerton University students

Parameter	Semester beginning	Mid semester	End semester
Library use	Orientation for first years		All year groups
Lectures	All year	Groups	
Leisure activities	All year groups	All year groups	
Own food preparation			
Eating from mess	First years during semester 1		A few students from other year groups
Social problems	All year groups		
Vandalism	All year groups	All year groups, mainly men	All year groups
Bookshop purchases	All year groups		
CATS			
Exam	Supplementary exams	All year groups, mainly men	End semester exams
Health problems	All year groups		
Time in halls of residence	All	Year	Groups

The data in table 13 was obtained from observations, and it helps to identify what time of the semester is busy, and with what kind of activities.

From table 13, it is notable that students mainly frequent the library during end of semester. At other times most reading is done in residential rooms. End of semester is the examination period. During beginning of semester 1, only first years are seen around the library (during the orientation week). Food preparation in the halls of residence intensifies during the mid-semester when funds are running out.

At the time, although students are busy with Continuous Assessment Tests (CATS), they are relatively free. Cooking reduces a bit during end of semester, i.e., the examination period when students are busier. Mid-semester is also when there is more vandalism, especially in the men's halls of residence. Electrical gadgets are the main targets. During beginning of the semester, a few students (first years) are seen in the mess (they have not yet settled down to cook for themselves and they still have the HELB loan). Bookshop purchase (not textbooks) is also done at the beginning of the semester. Social problems and financial problems are more rampant during this time. Some students have a lot of money, but mismanage it. Others have no funds since they have not received the HELB loan. Financial problems are also notable during the end of the semester when funds run out. Students are less engaged in luxurious activities then. Most students frequent health centres at the beginning of each semester. The most plausible reason given was based on lack of funds. With P.A.Y.E., students are now poorer and cannot afford medication at home. Consequently, they wait for the semester to begin so that they can obtain free medical treatment from the University.

### **4.3 Presentation of Data from University Staff and the Community**

In this section, data from university staff (academic and non-academic), parents, landlords and kiosks owners is presented. Since it was difficult to separate some data to fall into the three categories, most of it was lumped together to suit the objectives of the study.

#### **4.3.1. Problems, Benefits and Non-benefits of the P.A.Y.E. System**

Data concerning the benefits and non-benefits of the P.A.Y.E. system is summarised in table 15 and table 16, respectively. Table 17 summarises data concerning problems associated with the P.A.Y.E. system, while table 18 summarises suggestions for making the P.A.Y.E. system useful and beneficial.

Table 14 is a summary of information obtained indirectly about students on current health, academic and social matters from the university staff, parents, landlords, kiosk owners and peer counsellors. Table 19 is a summary of discipline cases reported to the University security office in

1998 and 1999. Information from the medical department is summarised in table 17.

Table 14. Students' current academic, social and health status in comparison to the situation before P.A.Y.E. (N=62)

Academics	Percent uncertain	Percent increased	Percent reduced
General performance	-	-	100
Students dropout	50	50	-
Completion of programmes	30	-	70
Absenteeism	30	70	-
Resit examinations	30	70	-
Health problems	4	66	30
Social problems	10	50	40

Although there was a general consensus on general academic performance, 30% of the respondents were non-committal on attributing everything to the P.A.Y.E. system. Accordingly, the social and cultural changes since the inception of the P.A.Y.E. system should be taken into account. Arguably, the question of maturity and the "A" level input previously in existence should not be ignored.

From table 14, it can be seen that 30% of the respondents suggested that health related problem had reduced, while 4% were uncertain and insisted that there was no change. The argument here was that African children were used to a poor diet and a few meals skipped sporadically would not affect their health. However, 66% argued that there had been a rise in health-related problems due to poor sanitation, overcrowding in halls of residence, poor hygienic conditions when preparing meals, and selection of cheapest meals that fell below the required dietary standards. All these were attributed to lack of funds brought about by the inception of the P.A.Y.E. system. While 10% of the respondents were quiet on social problems, 40% felt that there was an improvement, with 50% saying that the social life of students had deteriorated. Those for improvement cited formation of survival groups that would help train students to learn how to live together and share the little that they had. They also observed humility among students that saw them interact more with the community around the University.

Those reacting on deteriorating social life cited social ills such as increased drunkenness, drug abuse, trial marriages amongst students, and petty thefts. Social stratification was also identified as another social consequence of the P.A.Y.E. system. This latter one beats all efforts towards comradeship and national unity, which is one of the major goals of education in Kenya.

Table 15. Benefits of P.A.Y.E.

Benefit	N=500	N=46	N+30
	Student %	Univ. staff %	Community %
Reduced incidences of strikes based on food	100	100	100
Students have been trained to become independent and responsible through management of their own finances, time and lives.	100	50	60
Reduction of food wastage in the mess	80	90	-
University has divested itself from baby sitting in the catering messes	100	94	-
University generates some income from catering for students	26	6	-
The business community has a ready market for its commodities	100	100	100
There are improved relations between students and the community		50	100
P.A.Y.E. has broken some cultural norms and men have now learnt to cook for themselves	100	100	100
Students have learnt to share the little they have, and to become tolerant and accommodative of each others' shortcomings	100	40	33

Even though table 15 shows that 100% students felt more responsible now than before, 50% staff and 60% of the community felt that many students spent their money on activities that the financiers did not have in mind. As a result the students went broke within a short time and embarked on borrowing, or engaged in commercial activities that would help generate money. The table shows that only 80% of students and 90% of University staff thought that food wastage in the catering units was now history. The students were emphatic that they hardly ate in the students' mess, save for first year students during their first semester (week I and II). Ten percent of

the staff insisted that the unconsumed food was most likely thrown away since close to 95% of students prepared their own food. Only 26% of the students (these are the ones who sometimes ate in the mess) and 6% of the university staff thought that the university generated any income through the catering department. The rest argued that the catering staff were probably under utilised, and unable to plan ahead since they never knew how many students would be catered for at any given time.

They also reported that since the food prices in the catering messes were not competitive, students preferred cooking their own food.

Only 40% of the University staff and 33% of the community thought that the essence of sharing had been internalised by students. The rest cited disagreements among roommates on the grounds of cooking and incompatibility along economic lines.

Although there was a general improved relation between students and the community, 50% of the University staff reported that students complained to them about the souring relationships with their parents due to P.A.Y.E. It would appear that not all students and parents were telling the truth on this

The table shows that 100% students 94% University staff agree that the University had divested itself from baby-sitting in the catering messes. However, 6% of the staff reported a few cases of students stealing furniture, cutlery and crockery; or colluding with junior catering staff to cheat on food prices. This calls for some attention from the senior catering staff, since these are activities that divert student attention from their academic pursuits.

It is not easy for a lecturer to tell when a student is absent, especially when the group of students is large. It is not also easy to know those that have been registered unless one deals directly with them.

Table 16. Non-benefits of P.A.Y.E.

Non-benefit	N=500	N=16	N=30
	Students %	Univ. staff %	Comm.%
Lowered academic standards**	100	70	33+
Increased student absenteeism	80	80	-
Late student registration that interferes with University plans*	80	60	33+
Creation of more unnecessary needs coupled with financial mismanagement	30	60	-
Lowered health standards ***	30	70	33+
Overcrowded halls of residence	100	30	33+
Escalating electricity bills and maintenance cost due to cooking in rooms	100	100	-
Interferes with quality and quantity of academic work covered	60	70	33+
Students no longer buy recommended textbooks	100	100	33+
Increased social problems manifested in antisocial behaviour	100	60	22+
Prevalence of stress and frustration amongst students	70	80	22++
Time consuming as students spend a lot of time cooking	100	100	50++
Deferment of studies that interferes with long term plans	80		3+
P.A.Y.E. beats the purpose for which it was intended and instead promotes emergence of shrewd business people	80	80	22++
Lowered concentration in class due to hunger	50	37.5	-
Rampant strikes sparked off by minor issues because students are touchy	100	100	33+

*Notes:* Ninty-four percent of students stressed vehemently that P.A.Y.E. was not beneficial to them at all.

*Comm* – stands for community.

+ Mainly parents.

++ A few of each category - i.e., parents, landlords and kiosk owners.

\*\* Lowered academic standards are not only attributed to P.A.Y.E.; there are other factors that come into play.

\*\*\* African children are used to an exiguous diet, and as such skipping one or two meals sporadically will not make them sick. Besides, some students come from

home when they are sick and wait for the University to reopen to get free medical services. P.A.Y.E. may contribute a little towards falling health standards because of the way food is prepared and where it is prepared by students.

Table 17. Problems caused by P.A.Y.E.

Problem	Cause	Peak period
Alcoholism	Mismanagement of finance and time	All these problems occur throughout the semester but are more acute at the beginning and end of the semester
Drugs abuse	Inadequate funds	
Falling academic standards	Lack of self-esteem	
Stress	Lack of assertive skills	
Depression	Seeking instant gratification	
Frustration		
Poor social relationships		
Phobia		
Anxiety		
Financial		
Deteriorating health standards		
Antisocial behaviour		
Rapes and attempted rapes		
Sexual harassment		
Attempted suicides		

\* Inadequate funds as a cause cuts across all problems.

Falling academic standards were not wholly blamed on P.A.Y.E. by the academic staff. This group was categorical that other factors also came into play. Mismanagement of funds and time, and general apathy towards academic work were cited as some reasons. They, however, pointed out that P.A.Y.E. played a role since students had to feed first before they could think about academic work.

Table 18. Suggestions to make P.A.Y.E. beneficial

Suggestion	N=500	N=16	N=30
	Student %	Staff	Comm. %
Disburse HELB loans to all applicants and streamline recovery mechanism	100	-	100
Provide subsidised rates in the catering messes	100	6	-
HELB should increase food allowance to a reasonable amount	100	100	100
The University should facilitate fair competition for the catering department	-	6	-
HELB should disburse loans on a monthly basis	100	50	33
HELB should disburse loans on a monthly basis	100	60	33
The University should identify more donors and sponsors for needy students	-	-	33
The University should construct kitchenettes to facilities cooking	80	60	20
The business community around the University should put up decent and affordable rental units to reduce overcrowding in halls of residence	10	6	-
The University should expand guidance and counselling services to tackle health, academic and social problems	80	100	60
The government should provide free education at university level	100	50	33

According to table 18, all staff, students and the community suggested that HELB should disburse loans equitably and then streamline the recovery mechanism.

Although this may not be feasible immediately, because the revolving fund is not yet stable, it could become workable if more funds are deposited into that kitty.

The same percentage of respondents also suggested that food allowance should be increased to enable students to eat in the University messes. This would go a long way to curb all problems related to cooking in rooms and also allow students more time for studies. But this could be tricky because students could again choose to continue cooking in order to save more money. A ban to stop all cooking in rooms if accompanied with the money package would probably be more effective.

HELB disburses loans at the beginning of each semester. However, 100% of students, 80% of University staff, and 33% of community suggested that students should be paid monthly. Although this may mean too much work for HELB, with minor adjustments it can be done. Given the hard economic times, it is a bit difficult for anybody to budget on a three-month basis. It is not also clear why HELB pays half the tuition fees directly to the University, and then gives the student the other half to pay for oneself. It could be that it wants students to be responsible for their finances, but it causes a lot of inconveniences during registration since most students will withhold part of the tuition fees for food and go in search of money to offset the balance while they miss lectures. One-hundred percent of students, 50% of staff and 33% of community suggested that HELB should pay tuition directly to the University to curb inconveniences that arise during the registration week. Blair (1977) suggested that for an equitable implementation of any sharing programme, the government, donors, the community, family and parents should work together. One-hundred percent of students, 100% of staff and 33% of community suggested that the university should identify more donors and sponsors for needy students.

This is a good suggestion since needy students are more disadvantaged when they miss the HELB loan. One-hundred percent of students and of 6% staff suggested that the University should provide subsidised rates in the catering mess. This would go a long way to curb the inconvenience brought about by cooking in rooms. It is also a sure way to make students eat in the mess. The University will benefit a lot from the purchases. Besides, the escalated bills will come down as evidenced by the drop in bills when the University is on recess. The money obtained could be channelled into academic programmes. Vandalism of electrical gadgets, messing up of the hostels with dirt and food wastes and hawking of foodstuffs would also be eliminated. Students eating in the mess would also ensure more reading for other students because time would be saved from that spent on cooking and shopping for foodstuff. Social strata may just disappear because they have reportedly emerged on grounds of how many times one feeds, when one feeds, what one feeds on, and who one feeds with. Even though 80% of students, 60% of staff and 20% of community suggested that kitchenettes should be constructed to facilitate cooking, it may not be a viable project due to time and cost.

The suggestion by 100% of students, 100% of staff and 33% of community that work-study programmes be expanded is a good one. However, this has to be handled carefully since very many students are needy and the University may not be able to cope with the numbers. A suggestion by 100% of students, 50% of staff and 33% of community that the government should provide free education at university level was given. This would be a

good option to consider but it may not be workable at the moment due to the hard economic times.

The suggestion by 10% of students and 6% of staff, although not popular, that the business community puts up residential units around the University for rental purposes could actually help alleviate problems of overcrowded rooms.

Decent, affordable and secure units, with good lighting and water would be popular. Guidance and counselling services suggested by 80% of students, 100% of staff, and 60% of community is a good suggestion. These services, although currently provided, should be expanded to benefit students more. They need them to manage their problems and frustrations better.

Table 19. Cases reported to security office

Case	YEAR and MONTH																									
	1998												T	1999												T
	J	F	M	A	M	J	J	A	S	O	N	D		J	F	M	A	M	J	J	A	S	O	N	D	
Assault	-	-	1	-	2	-	3	-	-	-	3	-	9	-	1	-	-	2	3	4	-	-	-	-	11	
Creating disturbs.	-	-	-	-	-	-	2	-	-	-	-	-	2	-	-	-	-	-	-	1	2	-	-	-	1	
Theft	3	6	1	-	7	2	-	-	66	3	3	4	35	4	3	-	-	12	7	-	-	4	3	-	36	
Threatening Attempted rape	-	3	-	-	-	1	1	-	22	-	-	-	6	-	-	-	-	1	-	3	-	1	-	-	4	
Illicit brew	-	1	2	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	1	1	-	-	-	1	
Malicious damage	-	3	-	-	-	1	-	2	-	-	-	-	6	-	-	2	-	2	-	1	-	-	-	-	5	
Attempted suicide	-	-	-	-	1	-	3	-	-	2	-	1	6	-	-	-	-	1	-	1	-	-	-	-	2	
Selling *bhangi	-	1	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	0	
Grand Total	3	14	2	10	3	10	2	8	8	3	5	70	4	4	2	0	18	10	6	8	4	6	-	62		

SOURCE: Security office - Egerton University 1999.

\*bhangi - The drug Cannabis sativa.

T: Total.

Information obtained from the security office suggests that all the problems summarised in table 19 are related to P.A.Y.E. in one way or the other. Cases of theft, and selling of illicit brew are attributed to search for money for food and upkeep. Students caught with 'bhangi' gave the excuse of lack of money, and as such had to sell the commodity to obtain money for upkeep. The reported thefts were usually petty and involved stealing of foodstuffs such as milk, maize meal, wheat flour, tomatoes and vegetables. Even when other items were stolen, they were usually resold and proceeds used for purchasing food. Money was mainly stolen at the beginning of the semester (when the HELB loan was not equitably disbursed) and at the end of the semester when students were desperate for fare to go home. The disturbances reported mainly centred on male students going to demand for food from the women's halls of residence.

Cases of assault and threats reported were mainly said to arise from arguments due to one party failing to repay borrowed money.

The cases of malicious damage arose mainly as a result of drunkenness (mainly at the beginning of the semester when money was available). Most students, it was reported, misused and mismanaged their money on drinking

There is a clear indication that students' needs are centred on food, a need that has been heightened mainly with the introduction of P.A.Y.E.

Table 20. Medical cases reported

Month	Cases					
	UTI		Abortion		Other	
	1989	1999	1998	1999	1998	1999
January		1			1	
February			1			
March						
April						
May	1					
June			1			
July			1			
August						
September				2		
October						
November						
December						
Total	1	1	3	2	1	

SOURCE: Medical department Egerton University 1999.

Notes: UTI - Urinary Tract Infection.

The summaries in table 19 only refer to the cases reported to the ward. Information on sexually transmitted diseases, including HIV/AIDS, was not

availed for reasons of confidentiality. The medical officer did, however, suggest the existence of those cases.

#### *4.3.2 Results of the Survey Made through Use of the Observation Schedule*

*Lecturer halls:* Number of students around lecture halls was consistent every hour throughout the semester.

*Library:* The frequency of students around and inside the library varied with the time of semester, and time of day. They were more towards the evening and also during examinations period. During the beginning of the first semester, the majority of students around and inside the library were first-year students.

Inside the library, the majority of students just read newspapers, their lecture notes or completed assignments. The reference section was virtually unoccupied throughout the semester, except during examination when reading space became crowded. Not much research work went on. Most students borrowed library books to read in their rooms.

*Catering units:* The most popular food purchased were bean stew and *ugali*. The number of students in these areas was actually small and is only noticeable during the beginning of the first semester, when students (mainly first-year) reported to college, and also during the examination week.

*Accommodation/halls of residence:* The number of students per room varied from between two to six, depending on room type and bed capacity. Some students shared beds; so where there were two beds, one found four occupants. The rooms were well lit for lighting purposes but this was not adequate for reading given the number of occupants per room. Most residential halls were made from stone, except one which was a prefab. The rooms were overcrowded, thus stretching the available room facilities and space. The type of sockets available was for 240V consumption and not suited for cooking. Most electrical gadgets, especially in the men's halls of residence, had been vandalised and electricity tapped without passing through the circuit breakers.

The ablutions were generally dirty and so were the corridors and lobbies. The drainage in the bathrooms was mainly clogged with food remnants.

The area around the halls was generally unclean with garbage visibly displayed. However, the halls were generally safer in terms of security and protection against robbery attacks than were the privately rented rooms. Students who lived in privately rented rooms around the University lived in almost slum conditions. Tapped water and electricity were not available, and security was compromised. Visibly observable in the University rooms

of residence were the cooking utensils and *jua kali* electrical cooking coils. However, these were not common for students in privately rented rooms. They mainly used charcoal and kerosene stoves, which were not only messy but consumed more cooking time at the expense of studies.

Students were also found to engage in commercial activities such as salon business, video, secretarial services, photography, hawking of foodstuffs and other items such as illicit brew and cigarettes. Their business premises were easy to identify through the advertisements displayed in many places near their halls of residence. Students also engaged in many social activities, some of which involved drinking and visiting friends. The above activities occupied too much precious time at the expense of academic activities. Although most students read from their rooms, they also had to reckon with disruptions brought about by interference from visiting friends, chatting roommates, or cooking activities. Concentration on studies was therefore highly compromised.

#### **4.4 Discussion**

This discussion begins by highlighting the benefits and non-benefits of the P.A.Y.E. system. It then focuses on the problems and how they impact on education.

##### **4.4.1. Benefits of the P.A.Y.E. System**

Contrary to the common belief that the P.A.Y.E system had no benefits to the parties concerned, the study showed some benefits realised since the introduction of the system in 1992. Confirming Handa (1991) and Kibor (1992), the study revealed that the system exposed students to the realities of life by encouraging them to handle their own money, time and lives. This, as the study revealed has helped most students to become independent and responsible. The students concurred that reason and fact presently guided them.

Consequently, the strikes that hitherto plagued public universities in Kenya on due to food were now history. This finding also supported the findings of Ochwada (1998) and Blair (1997) that cost-sharing, hence P.A.Y.E., would curtail students' strikes.

Since these strikes mostly ended in university closures, their being curtailed means non-interference with academic programmes. P.A.Y.E. has also cut down on the food budget by curbing wastage in the catering units. It has also brought to an end the wanton destruction that accompanied strikes in the catering units. What this implies is that the funds saved from this could be channelled into academic programmes. Although the chief catering officer at Egerton University complained about incidences of collaboration

between students and some junior catering staff to cheat on food prices, these were isolated cases that could safely be controlled. With a bit of restructuring towards this, the University was likely to generate some income from catering. In most Kenyan communities, men do not cook for themselves. However, the P.A.Y.E. system has seen to it that these cultural norms are broken. Male students have learnt to cook for themselves, and then clean up after eating. Previously, most men left the University without the knowledge of cooking even the simplest dishes. This was always to their disadvantage when they graduated and were posted to the field. Fortunately, today they have been prepared to face the challenges of life outside college. They can make a workable kitchen budget and cook on their own.

In the past, at least up to 1991, public universities in Kenya were viewed as oases of knowledge in deserts of ignorance; university students did not mix with the community and often carried themselves with an air of superiority. According to the Chief Halls Officer at Egerton University, students were arrogant. Today, P.A.Y.E. has humbled them; they have learnt to interact with landlords and kiosk owners. These are the people who avail them credit facilities when they are broke. This humility is likely to see them serve Kenyans better when they graduate. Education is not just about passing examinations; it is also about producing a fully functional person. Therefore, the informal dimension of education has to be taken care of; this is what this interaction does for the students. Another plus for the P.A.Y.E. system that takes care of the informal dimension is the value it has helped instil in students. The study indicated that on average students have learnt to become tolerant of each other, and to accommodate each other's shortcomings. They have also learnt to share exiguously the little that they have in the spirit of oneness. This oneness is what Kenya cherishes and has clearly stipulated as one of her goals of education, "education should foster a sense of nationhood and national unity."

The above findings further confirm earlier findings by a group of Kenyan scholars on an educational tour (1991) of some universities in Africa.

Although the P.A.Y.E system has been found to engender some benefits, it also engenders non-benefits discussed in the subsequent subsections.

#### ***4.4.2 Non-benefits of P.A.Y.E.***

Ninty-four percent of students stressed vehemently that the P.A.Y.E. system was not beneficial to them at all. According to them, it probably benefited only the University. However, 6% agreed that P.A.Y.E. had benefited them. Eight percent of them felt it was beneficial to university education. Forty percent of non-students (staff and community) interviewed felt that the

P.A.Y.E. was beneficial to social life, while 30% felt that it had improved the health of students.

However, 100% of students were categorical that the P.A.Y.E. system in general was not beneficial. Fifty percent of non-students also expressed the non-beneficial effects of the P.A.Y.E. system.

The expressed hope that cost-sharing and hence P.A.Y.E. would make students more disciplined and responsible (Omari 1991; Wandiga 1997), was negated by this study. Fifty percent of the University staff and 40% of the community interviewed still regretted that students were not mature enough to handle at once the colossal sum of money given to them in lump sum.

In support of Muiruri (1992), the study revealed that prior to being admitted to the University, most students had not handled money to the tune of US \$560 that was given to them on admission. This converts to a whopping Ksh. 42000, which confuses them, and most of them end up mismanaging it.

#### ***4.4.3 Problems Faced by Students due to P.A.Y.E.***

With the introduction of the P.A.Y.E. system, all the problems identified were thought to afflict students. However, the socio-economic problems were identified to be most acute. The academic and health related problems ranked second and third, respectively. Ochwada (1998) noted in relation to the same issue that the P.A.Y.E. system affected students socially, economically and health-wise. His sentiments on emergence of social strata as a consequence of P.A.Y.E. were confirmed by the findings of this study. The Chief Halls Officer at Egerton University indicated that the P.A.Y.E. system had encouraged social stratification among students; this he said was accompanied by incidences of the less needy students patronising the needy ones. Although health problems were not ranked by students as being acute, the Chief Halls Officer, the Chief Catering Officer, and the Chief Medical Officer (Egerton University) confirmed Ochwada's (1998) observations that the system created a lot of health risks among the students. They observed that students usually discovered cheaper places for purchasing raw foodstuffs. These were mainly not very hygienic places, and the food obtained here at times caused diarrhoea. The same officers also observed that, in line with Omuondo (1992), students dumped food remnants within and around their halls of residence, thus exposing themselves to further health risks.

Poor health impacts on education since the sick student has to seek medical attention at the expense of studies. The problems, though not acute now,

may develop into something serious if high hygienic standards are not observed.

Another problem that was reported and also observed, and this concurred with Omari (1991), was sharing of beds. The resulting overcrowded rooms did not augur well with studies and hence education. A major problem identified by this study to have intensified with the P.A.Y.E system was the general reduction in moral values. Ochwada (1998) had expressed his disappointment on this.

Although the consumption of alcohol was reported to have decreased as reflected in the cases of disturbances and malicious damage, thefts had increased.

The social ills engaged in by students contributed a lot to time wastage in terms of appearance before the disciplinary committee, or even being suspended from university. This in turn impacted negatively on education.

#### *4.4.4 The Effect of P.A.Y.E. System on Education in Public Universities in Kenya*

The results of this study have shown that the objective of the P.A.Y.E. system to inculcate a sense of responsibility and to impart leadership qualities has failed.

Consequently, there has been deterioration of intellectual work, and the quality of social life has been greatly eroded. The findings support Ochwada (1998) and Antony (1998), but contradict Wandiga's (1997) and Blair's (1997) expressed hope that students would value education more when they paid for it.

The study has shown that the situation at the public universities in Kenya is graver than it was before the introduction of the P.A.Y.E. system.

As the study reveals, it is not uncommon to find students at the University sharing beds in their halls of residence, buying foodstuffs from food kiosks of questionable hygienic standards, or engaging in money generating activities to make ends meet.

These activities impact heavily on education. Sharing beds, for example, results in overcrowded rooms, thereby overstressing the facilities hitherto intended for a certain number of occupants. Pirating in rooms brings about bed-sharing. The resulting overcrowding leads to poor living standards and sanitation problems. This is not only a health risk, but it also means that reading space is reduced. It also means that lighting for reading is not adequate. There are other inconveniences also brought about by

overcrowding in the sense of interruption due to clashing activities engaged in simultaneously by occupants of one room.

Overcrowding in rooms also leads to studying and completing assignments in turns because of lack of working space. This wastes time and impacts negatively on education.

Due to the P.A.Y.E. system, student activities have been redefined to a point where students are more occupied with income-generating and money-saving activities rather than with education and research. This study, together with that of Ochwada (1998) and Antony (1998), found that cooking and hawking in rooms had intensified. Students chose to cook in their rooms because it was cheaper to do so. It also ensured that they read or completed their assignments as they supervised the cooking. This was one reason why they did not use the library as frequently as they should. This tendency sets a poor precedence for academic work. The library is an important resource that should not be treated as being optional by any scholar.

Cooking in rooms engendered other problems. Firstly, it was reported to orient students towards vandalism of electrical gadgets and tapping of electricity directly without passing through circuit breakers. This led to chronic blackouts, not to mention the risk of fire outbreaks.

Blackouts meant students could not cook as they mainly cooked on *jua kali* electrical coils. Failure to cook then meant going hungry. This, as was reported by some academic staff, could result in lack of concentration during lectures.

Blackouts during the night meant that students could not complete their assignments. During the day, it meant that lecturers could not use teaching aids that were power driven. This in turn impinges heavily on academic work.

Besides this, the University has to solve the blackouts urgently to avert student protests. Since blackouts are reportedly rampant, the maintenance exercise digs deeply into the University coffer. Funds that would have been channelled into the support of academic programmes go towards maintenance at the expense of education. Secondly, cooking in rooms was found to result in escalated electricity bills. It was reported that electricity bills shot as high as Ksh. 2 million per month when students were in session, and dropped to a low Ksh. 0.5 million when the University was in recess. This money could have been used to support academic programmes, including the purchase of up-to-date library materials and books, machines, equipment and teaching aids.

Unfortunately, this remains a distant dream for as long as students continue cooking in their rooms.

Thirdly, cooking in rooms was reported to lead to disagreement among students due to food. This in turn killed the spirit of comradeship, as students could not even do their assignments in groups.

Fourthly, cooking in rooms meant that students had to budget and shop. It was reported that they spent between 3-4 hours from their busy schedule just to shop and cook. This was time that would have been put to academic use.

Lastly, it disorganised the catering staff since they could not plan in advance the number of students to cater for. The so much acclaimed curbing of wastage is reduced to a joke since surplus food is wasted. Besides, the catering staff are being underutilised and yet continue being paid.

Despite the ban by the University, hawking of foodstuffs such as *kale*, tomatoes, eggs, bread and other groceries was reported and also observed. Other businesses reported were selling of illicit or local brew, cigarettes and stationery. The study revealed the mushrooming of hair salons, secretarial services such as typing, electronic and radio repair, video shows and photography.

All these activities have their toll on educational standards. They ostensibly take up too much time off the academic schedule.

The study also unearthed an increase in antisocial behaviour that greatly impinged on quality academic work. Serious antisocial tendencies identified were prostitution and promiscuity as reflected in the number of abortions. These were just the reported cases. Most illegal but successful abortions went unreported due to the stigma attached to abortion. Other pregnancies resulted in births. It was reported that due to their inherent differences of needs, lack of money led more women than men into prostitution. Going back to the issue of abortions, it should be pointed out that pregnancy and the subsequent birth is an added burden to a student who is already stressed by the P.A.Y.E. system. Giving birth and hence bringing up a baby means fending for the baby. It also means seeking alternative accommodation since the University has no arrangement for accommodating mothers with their babies.

In order to curtail all these potential problems, women students engaged in abortions. However, most pregnancies resulted in marriages of convenience between students. What this meant was that the male student had to work harder to support his 'family'. As he searched for money mainly through

doing odd jobs, his studies suffered. The female student on the other hand had to take care of the baby. During maternity and childbirth and when the baby was sick, the young mother missed quite a number of lecturers or even examinations. Her financial demands multiplied and life with P.A.Y.E. consequently became a nightmare thereby impacting negatively on her education.

Though data on cases of STDs and HIV/AIDS were not available, on grounds of confidentiality, the medical officer at Egerton University was positive that the trend followed that of 1997. HIV/AIDS is also an indirect consequence of P.A.Y.E. This is brought about by promiscuity, either due to lack of money (women) or availability of too much mismanaged money (men).

Other reported antisocial behaviours on the increase due to P.A.Y.E included thefts, threats, attempted rapes, consumption of illicit brews, malicious damage of property, attempted suicides, selling and smoking of 'bhanghi'.

These are tendencies that impact quite negatively on education.

Most excuses given by students as reported to the Chief Security Officer (Egerton University) were based on lack of adequate finances. Items stolen were mainly foodstuffs. Other items were stolen for selling purposes in order to raise money for food. Theft, be it petty or major, paints a negative picture of the thief before the society. This orients the thief to develop a negative self-image and minimises his/her chances of working with others as a team. Thieves are also not readily accepted by the rest and are treated as suspect all the time. This makes life in the University quite unbearable for them and in turn affects their academic work.

Incidences of consumption of illicit brew are on the increase because it is cheaper than the licensed brew. P.A.Y.E. means that money has to be saved. Those who crave for liquor settle for the cheaper variety in order to make a saving. Those types of brews have been reported to be at times life-threatening. Drunken students were also reported to threaten others, to cause malicious damage to property, to attempt rape or suicide. They ended up before the disciplinary committee and hence wasted too much valuable time. Sometimes, they were suspended from college thus missing quite a number of lecturers. This has a direct bearing on academic standards.

Those students brought to the security officer (Egerton University) for selling 'bhanghi' said they did so in order to raise money for upkeep and meals. Those who smoked it did so in a bid to drown their frustrations and sorrow. These have reportedly increased with the introduction of P.A.Y.E.

Possession of 'bhangi' is a serious offence in Kenya and could land the offender in prison. Smoking it is known to affect the mind. Both consequences impact negatively on education.

This study found that as students underwent economic hardships, they became more aware of their rights and demanded them. This, it was reported, at times led to strikes that often culminated in closure of the University. Even though P.A.Y.E. had succeeded to put an end to strikes based on food-related hardships, and made students to be touchy and easy to incite. Small provocations were reported to have led to strikes that resulted in a lot of damage to public property. Universities often responded to this by sending students off indefinitely.

In a bid to recover lost time, a typical 32 weeks academic year was often condensed into a 24-week academic year. This in turn stressed students and lecturers alike as they struggled to cover the syllabus. It became a question of quantity versus quality.

This academic pressure coupled with financial problems has resulted in psychological conditions as was hinted by the medical departments (Egerton University). Since these psychological conditions disturb the mind, they do in turn impinge on education.

Although the study revealed that the relationship between students and the community had improved, it also revealed that the relationships between most students and their parents or guardians had soured as reported to the Dean of Students office. This was attributed to the pressure put on students by uninformed parents who felt bothered when their children asked them to pay fees. The Dean of Students (Egerton University) reported that it was clear that some parents were ignorant of the fact that the University students actually required to them pay a 'large' amount of fees.

According to the Dean of Students (Egerton University), and this information was further confirmed by the Registrar Academic Affairs (Egerton University), some parents still harboured the idea that University students were fully financed by the government.

The Dean went on to report that most students from poor families were stressed by their parents, who regrettably accompanied them (students) to the banks to collect their loans so that part of it could be used to support the rest of the family. This trend actually aggravated financial problems with a further bearing on education.

Another consequence of P.A.Y.E. as revealed by this study, and also confirmed the findings of Ochwada (1998), was social stratification and patronising of the poor by the rich. It is quite ironical when a well-to-do

student employs a needy one (yet they are both students) to do the cooking, cleaning and washing. This happens because the needy one requires money for upkeep and food. This situation, it was reported, made needy students to develop self-pity and feelings of unworthiness, since they were made to feel inferior.

This does not augur well with the quest to recognise others as comrades. The first goal of education in Kenya lays emphasis on national unity. This cannot be realised under circumstances in which students are divided into social strata.

From the foregoing, the study demonstrates that P.A.Y.E. as a SAP measure has impacted negatively on university education in Kenya. Its positive effects have been overshadowed, outweighed and minimised by the negative ones.

#### ***4.4.5 Suggestions to Make P.A.Y.E. Beneficial to University Students***

Students suggested that the P.A.Y.E. system would be made more beneficial to them by introducing subsidised rates in their catering mess. This, they agreed was the best option in terms of equitability, technical feasibility, cost, acceptability, stability and also because it required very little time to implement.

Other options were floated. These included equitable disbursement of the HELB loan, constructing kitchenettes and stepping up the power load to accommodate cooking within the halls of residence, expansion of the work study programmes to benefit more students, to allow students to share rent per room instead of paying for a bed. This last one, it was suggested by students, would ease congestion in rooms if the University set a limit to the number of occupants per room. However, these other options, although acceptable to students, may not be technically feasible within the shortest time to be of benefit to them. It appears that the first option would be the best if implemented since it is likely to solve many problems. Most important, it would minimise the cooking in rooms, and hence the expenses incurred by the University on that account would be reduced. It is also likely to allow students more study time.

## **5. SUMMARY OF FINDINGS AND RECOMMENDATIONS**

### **5.1 Background**

The study aimed at coming up with specific data on the effect of pay-as-you-eat (P.A.Y.E.) system on education in public universities in Kenya.

The study was a survey carried out on a sample of 500 students and 16 members of staff (seven academic and nine non-academic) of Egerton University, Njoro, Kenya.

The student sample was drawn through stratified random sampling. The strata were determined by both the year of study and the faculty registered into. The staff sample was purposively drawn to include only those persons best placed to provide the required information. Members of the community (10 parents, 10 landlords, 10 kiosk owners) around the University were also included in the sample.

A questionnaire, structured interview schedules, a focus group discussion schedule and an observation schedule, were used for data collection. The collected data was analysed both qualitatively and quantitatively; and results summarised either in tabular form or by use of figures.

On the basis of the findings, conclusions were drawn and suggestions and recommendations made.

## **5.2 Findings**

The study came up with the following findings:

- i. P.A.Y.E had some benefits in that it had achieved the following:
  - (a) It had curtailed all incidences of strikes that were directly based on food in the cafeteria,
  - (b) It reduced unnecessary wastage of food by students in the catering units, and created some potential for the University to generate some income from catering for students.
  - (c) It taught students to be more disciplined and thus more responsible for their own lives. As such, they had learnt to be more tolerant and supportive of each other, especially during times of need.
  - (e) It humbled students in such a way that they interacted more with the community than they did before.

All these had a positive effect on education.

P.A.Y.E. had several non-benefits that overshadowed and minimised the effect of its benefits. These non-benefits were found to have their toll on education. They lowered scholarship and re-defined students' focus and activities in such a way that instead of focussing more on educational matters, students were more preoccupied with activities that generated some income for food and upkeep.

P.A.Y.E. engendered many problems for the students. These problems (in particular socio-economic and psychological) forced students to be pre-occupied with developing survival techniques, most of them not morally sound. Consequently, valuable time was wasted leading to lowered scholarship.

The University incurred losses instead of the expected gains. This is a negation of the intentions of the P.A.Y.E. system.

From the foregoing, it is ostensible that the policy of cost-sharing in the University (in this case, the P.A.Y.E system) has impacted negatively on students' lives.

The findings of this study have also demonstrated that any positive effects of the system have been minimised by the negative ones, and that the University students have been left worse off financially than before the introduction of the system.

### **5.3 Recommendations**

On the basis of the study, the following suggestions and recommendations were made:

- i. Instead of succumbing to pressure, the government should treat university education as a national service in the same way it does the armed forces, and provide free university education like it did in the past. The state should thus invest more on high-level human resources so as to remain competitive on the world market.
- ii. The Higher Education Loans Board (HELB) should solicit for more funds to make the revolving fund from which it obtains money more stable.

Upon achieving this, it should then disburse loans equitably to all applicants. The recovery mechanism should then be streamlined to ensure that every loan beneficiary repays the loan. Besides this, it should pay students on a monthly basis to facilitate management and budgeting. Something else that will be useful is for HELB to pay all tuition directly to the University instead of paying half. It should also increase food allowance from the current Kshs. 80 per day to a more reasonable amount.

- iii. Universities should identify more donors and sponsors to award scholarships and bursaries to brilliant needy students. Egerton University works with a few donors and sponsors, but more are needed.

- iv. Universities should establish viable income-generating projects and manage them under work-study programmes to benefit more students.
- v. Universities should provide subsidised rates in the students' messes to make meals affordable for all and hence minimise the cooking in rooms.
- vi. If students must continue cooking for themselves, universities should consider renovating the halls of residence with a view to establishing kitchenettes. This will reduce blackouts caused by overloading and consequently reduce the maintenance costs.

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